DOCUMENT RESUME

ED 031 959 EM 007 413

By-Molnar, Andrew R.; Sherman, Beverly

U.S. Office of Education Support of Computer Activities.

Spons Agency-Office of Education (DHEW), Washington, D.C. Bureau of Research.

Report No-OE-12044

Pub Date Jan 69

Note-213p.

Available from-Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 (GPO FS 5.212:12044, $1.75)

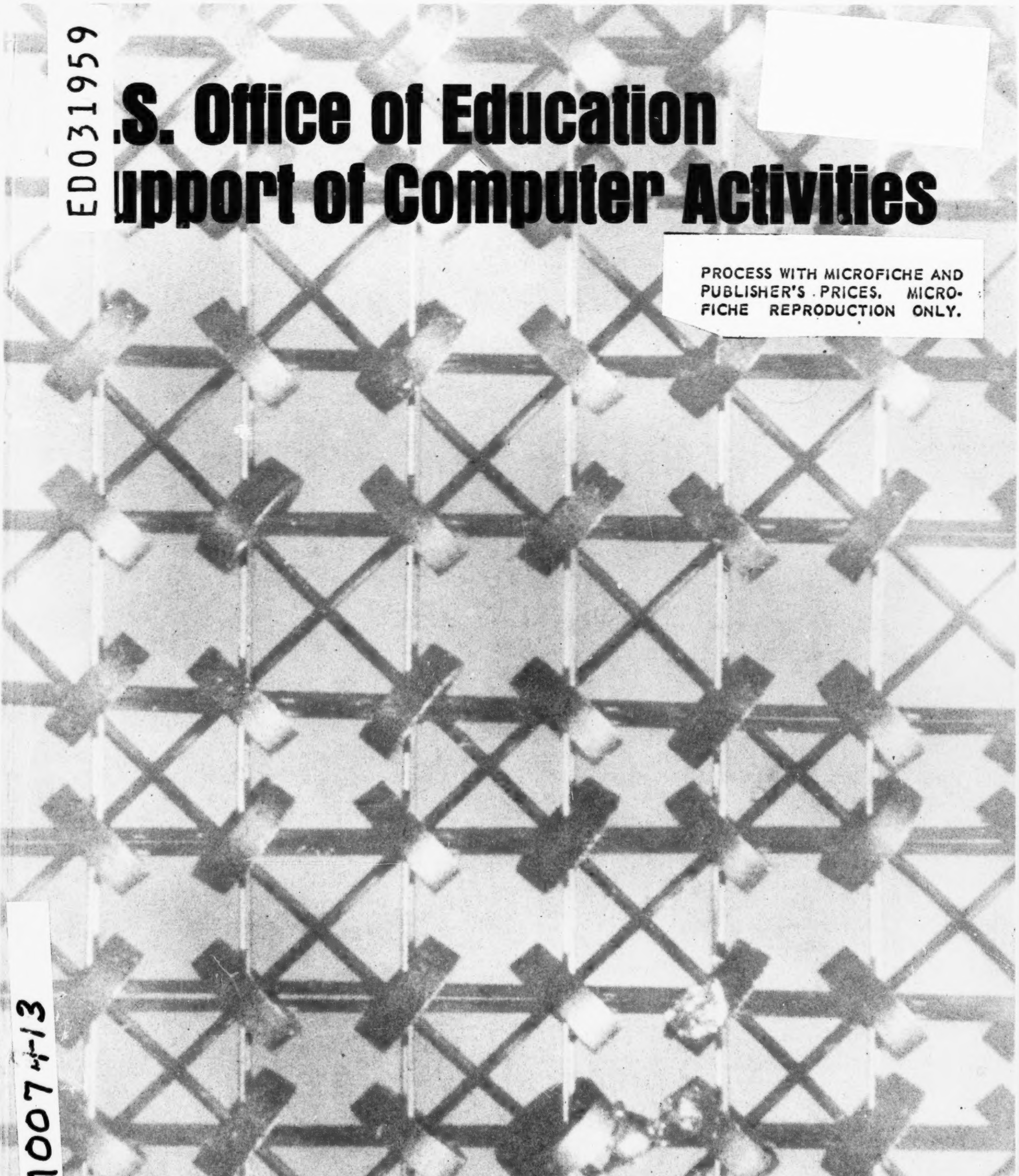
EDRS Price MF-$1.00 HC Not Available from EDRS.

Descriptors-Abstracts, *Computer Assisted Instruction, *Computer Oriented Programs, Computer Science Education, *Federal Programs, *Government Publications, Guidance Programs, Information Retrieval, Models, Programing, Regional Laboratories, Research and Development Centers, *Research Projects, School Administration, Simulation, Student Personnel Services, Student Testing, Supplementary Educational Centers

Identifiers-Educational Resources Information Centers, ERIC, Office of Education, PACE, Projects to Advance Creativity in Education, Research in Education

The Office of Education, through the Bureau of Research and the Bureau of Elementary and Secondary Education, has spent approximately $67 million on research and research related activities, planning projects, and operational programs on the application of computer technology and its use in education. Appendix A lists projects funded through the Bureau of Research for 1967, 1968, and 1969--thirty-five on computer assisted instruction and computer managed instruction, 13 on programing for specialized data development and analysis, 11 on computer models and simulation, 24 on data banks and information retrieval systems, 11 on computers in administration and organization, and 37 on curriculum and training for computer application. Appendix B contains the abstracts of these projects. Appendix C lists 158 reports which have appeared in the journal "Research in Education" on computer related activities. Twenty regional educational laboratories, their addresses, major program interests, and specific computer projects are listed in Appendix D. Appendix E provides a list of 11 Research and Development Centers and 19 Educational Resources Information Center (ERIC) Clearinghouses, with their addresses. In Appendix F 155 Projects to Advance Creativity in Education (PACE) sponsored for 1966, 1967, and 1968 are listed. (JY)

ED031959



.S. Office of Education upport of Computer Activities

PROCESS WITH MICROFICHE AND PUBLISHER'S PRICES. MICROFICHE REPRODUCTION ONLY.

EM007413

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

PROCESS WITH MICROFICHE AND PUBLISHER'S PRICES. MICRO-FICHE REPRODUCTION ONLY.

OE–12044

U.S. Office of Education Support of Computer Activities

By
Andrew R. Molnar
Chief, Instructional Materials and
Practices Branch
Division of Higher Education Research
Beverly Sherman
Research Assistant
Division of Higher Education Research

January 1969

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Office of Education

Robert H. Finch, Secretary

James E. Allen, Jr., *Assistant Secretary and Commissioner of Education*

Permission to reproduce this copyrighted work has been granted to the Educational Resources Information Center (ERIC) and to the organization operating under contract with the Office to Education to reproduce documents included in the ERIC system by means of microfiche only, but this right is not conferred to any users of the microfiche received from the ERIC Document Reproduction Service. Further reproduction of any part requires permission of the copyright owner.

Superintendent of Documents Catalog No. FS 5.212:12044

U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON : 1969

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402 - Price $1.75

U.S. OFFICE OF EDUCATION SUPPORT OF COMPUTER ACTIVITIES

CONTENTS

Page

Introduction: Computer Activities in Education....................1

I. Bureau of Research Support of Computer-Related Research........1

- A. Project Research......................................2
- B. Programmatic Research..................................2
- C. Research Dissemination.................................3
- D. Scope and Type of Research Projects....................3

II. Other Office of Education Support of Computer Activities.......8

- A. Title III, Elementary-Secondary Education Act of 1965......8
- B. Title I, Elementary-Secondary Education Act of 1965........8

III. Total Estimated Costs..9

IV. New Programs...10

Appendixes:

A: Bureau of Research Computer-Related Research Projects for Fiscal Years 1967, 1968, and 1969........................11

B: Bureau of Research Computer-Related Research Projects--Abstracts..31

C: Reports in Research in Education on Computer-Related Activities...109

D: Regional Educational Laboratories and Computer Activities...129

E: Research and Development Centers; ERIC Clearinghouses....137

F: Abstracts of ESEA Title III Projects Involving the Use of Computers..141

INTRODUCTION: COMPUTER ACTIVITIES IN EDUCATION

Historically, it is estimated that the Office of Education has spent approximately $67 million on research and research-related activities, planning projects, and operational programs which focus on the application of computer technology and use in education.[1] This figure is a conservative estimate based upon readily available information on programs which are described in this report.

There are several programs which characteristically support most of the computer-related work. Title IV of the Elementary-Secondary Education Act (ESEA) of 1965 (Cooperative Research), tends to support the major research and development efforts. Title III and Title I of the Elementary-Secondary Education Act have tended to support the planning and operational uses of computers.

I. BUREAU OF RESEARCH SUPPORT OF COMPUTER-RELATED RESEARCH

It should be noted that many research projects supported by the Office of Education's Bureau of Research do involve computers in one way or another. It is most common for educational research projects to utilize the computer during the organization and analysis of research data. On the whole, such projects are not included in the present compilation. Rather the projects being considered in this discussion have been singled out because their emphasis is on the exploration of ways in which computer technology may make a significant contribution to American education. Similarly, only selected programmatic efforts have been chosen for mention.

---

[1] For purpose of comparison, it is estimated the total national expenditure for education in Fiscal Year 1967 was $40 billion. The U.S. Office of Education appropriation for Fiscal Year 1967 was $3.9 billion. It is estimated that in Fiscal Year 1967 that $859,961,355 was spent (including matching funds) for media and media-related activities.

The information provided in the following sections and accompanying appendixes is intended to show directions and scope of Office of Education support of computers. All dollar figures should be regarded as estimates indicative of trends.

A. Project Research

Since the late 1950's an estimated $35.6 million has been provided for the support of over 210 research-related projects concerned with the educational uses of computers. Most of these projects have received support through the Cooperative Research Act (amended by Title IV of the Elementary-Secondary Education Act of 1965) and others have been made possible through funds appropriated for Title VII of the National Defense Education Act (NDEA)[2] and the Vocational Education Act of 1963. Title VI of the National Defense Education Act which supports research in foreign languages has supported some computer projects. Most notable is a computer-assisted instruction project in Russian at the Stanford University. (Appendix A presents a list of computer-related projects for FY'67, '68, and '69 which are on-going as of November, 1968. Appendix B presents abstracts of on-going and completed research.)

B. Programmatic Research

In addition to project research supported by the Bureau of Research under its several authorizations, programmatic research involving computer use has also received significant support. Such efforts are carried out through the Research and Development Centers and the Regional Educational Laboratories.

1. Research and Development Centers

There are nine Research and Development Centers supported by the Cooperative Research Program and two others supported under the Vocational Education Act of 1963. For Fiscal Year 1968 approximately $579,000 was spent on studies in computer-assisted instruction (CAI) and computer-managed instruction (CMI) in the R&D Centers. The Stanford Center for Research and Development in Teaching and the Learning Research and Development Center at the University of Pittsburgh have probably been the most active in the area of computers. The Learning Research and Development Center received $285,000 in Fiscal Year 1967 and $371,000 in Fiscal Year 1968 for research on computer-assisted instruction and for a project for developing a system for computer-assisted management of individualized instruction programs. (See Appendix E for list of Centers.)

---

[2] Title VII of NDEA, Research in New Educational Media, expired at the end of Fiscal Year 1968.

2. Regional Educational Laboratories

The major objective of the twenty Educational Laboratories is to encourage the development and demonstration of new educational products and methods of instruction. The Educational Laboratories have devoted an estimated $2,719,378 to computer-related research and applications. The Southwest Regional Laboratory in Inglewood, California has received $345,000 in Fiscal Year 1967; $407,000 in Fiscal Year 1968; and is expected to receive $625,000 for the development of computer-managed instructional and administrative planning systems during Fiscal Year 1969. (See Appendix D.)

C. Research Dissemination

With the ever increasing amount of information and research in education, the Office of Education has called upon the storage and retrieval capabilities of the latest data-processing equipment in order to compile relevant data and operate its Educational Resources Information Center (ERIC). ERIC is the first nationwide, comprehensive information system designed to serve American education. With a central office in the Office of Education, ERIC coordinates the efforts of nineteen satellite clearinghouses across the country, each of which focuses on a separate subject-matter area. Although it is difficult to break out computer from other costs in the ERIC program, the computer costs of this information system were an estimated $4,087,000.

ERIC COMPUTER COSTS

Fiscal Years	Costs
1966	$ 177,000
1967	807,000
1968	900,000
1969	953,000
1970	1,250,000

(See Appendix E for list of ERIC Centers.)

D. Scope and Type of Research Projects

Project research receiving Bureau of Research support falls into six general categories:

1. Computer-Assisted Instruction, Computer-Managed Instruction (CAI-CMI)

Projects in this category primarily deal with the study of learning variables as the student reacts to instruction by computer and the development of software, including curriculum programing, and administrative control for use in CAI-CMI.

One of several examples of this category is the computer-assisted instruction project conducted by Dr. Patrick Suppes and Dr. Richard Atkinson of Stanford University. They have been working on the development and testing of computer-assisted instruction curriculums in beginning reading and mathematics for the culturally deprived in primary grades. They have developed basic programs as well as drill and maintenance exercises. Extensive effort has been devoted to learning theory, the logic of complex concept formation and systems analysis. Recently, these computer-assisted instruction services have been expanded to schools in Kentucky and Mississippi. That is, the central computer is being used through terminals in the various states via common carrier lines. An interesting aspect of this is that due to the difference in time zones it is possible to have longer on-line use of the computer.

At Florida State University, Dr. Duncan Hansen has developed a computer-assisted instruction course for introductory college physics which he is comparing with a lecture course. He is relating student variables and student attitudes with learning effectiveness and will try to estimate the cost-effectiveness of the program.

Dr. Alexander Schure of the New York Institute of Technology is developing and testing a computer-managed system for individualizing and optimizing instruction. This project seeks to test the cost-effectiveness of this approach to individualized learning.

2. Programing for Specialized Data Development and Analysis

Such projects involve the application of new computer programs to generate otherwise inaccessible data and perform analyses and translations uniquely practical by computer.

One example of this category is a project by Dr. Ellis Page of the University of Connecticut. He is developing a computer analysis of English composition essays. The objectives of the study are to analyze the computer-generated objective data in relation to subjective measures and study those aspects of essay description which appear most promising for feedback to teachers and students. Hundreds of student essays on assigned topics will be rated independently on content, style, organization, mechanics and overall quality. These ratings will form the basis for the computer analysis.

Two other projects in this category were concerned with the computer production of braille materials from print for blind children.

3. Computer Models and Simulation

These activities involve the utilization of computers for the projection and testing of theoretical ideas in educational research and statistics as well as the testing of alternatives for decision-making in real life situations.

Among examples of this category are the computer simulation of a statewide film network and a computer study of the allocation of channels and placement of transmitters in a metropolitan area.

4. Data Banks and Information Retrieval Systems

These projects explore the potential of the computer for storage and retrieval of large bodies of information relevant to education and educational research.

Typical projects in this category include studies to develop computer based systems for library use, the search of bibliographic holdings in on-line computer systems, and storage and retrieval studies.

In another project, the Interuniversity Communications Council (EDUCOM) is establishing a computer network for sharing of computational capability resources among network user nodes. Prior to the establishment of the network, EDUCOM will survey existing networks and evaluate the strengths and weaknesses of each.

5. Computers in Administration and Organization

Projects falling into this category pertain to promising uses of the computer in educational planning and management at all levels. Several feasibility studies for computer use in schools are included.

Typical projects in this area have dealt with class scheduling problems, student accounting systems, and the development of a computer program for use in the analysis of future land, building, and staff requirements in institutions in higher education.

6. Curriculum and Training for Computer Application

Such projects include the development of curriculum for training in computer use and the establishment of training programs to aid educators and researchers in making use of computer technology in their respective work activities.

In addition to specific training and curriculum projects, the Bureau of Research initiated a series of feasibility studies for the development of a regional computer utility with the International Business Machines Corporation, the General Learning Corporation, and Computation Planning, Inc. The objective of the studies was to determine what computer services could be obtained from a centralized facility which would service 100,000 students within a 100-mile radius at a minimum cost and to evaluate the worth of these services. Interestingly enough, independent studies showed that it would be possible to provide the administrative computer services for the schools, junior colleges, and universities within this area during the post school hours while providing terminals for students for problem solving, computer concept and vocation training during the school day--all of this for about 1% of the school's operating budget. Currently the Bureau of Research is initiating a project to develop and demonstrate this concept. It is also contemplated that student guidance, computer-managed instruction, and library functions will also be ultimately added to the system.

Although the following table, "Bureau of Research Computer Related Projects" shows a decline in the total number of projects supported and the total dollars spent from Fiscal Year 1967 to Fiscal Year 1969, the total costs per project have increased. This reflects an awareness that educational computer projects deal with complex systems and that unless given sufficient support and time it is difficult to evaluate the effectiveness of the educational approach. Consequently, the trend has been away from small component oriented projects to larger system oriented projects.

BUREAU OF RESEARCH COMPUTER-RELATED PROJECTS

Category	No. of Projects Receiving Funds FY'67	Total Investment FY'67	No. of Projects Receiving Funds FY'68	Total Investment FY'68	No. of Projects Receiving Funds FY'69	Total Investment FY'69
I: CAI and CMI	18	$2,020,108	18	$2,938,735	10	$2,876,084
II: Programing for Specialized Data Development and Analysis	5	135,143	6	243,142	0	0
III: Computer Models and Simulation	7	621,792	5	603,326	1	379,016
IV: Data Banks and Information Retrieval Systems	19	1,922,324	6	556,082	1	23,000
V: Computers in Administration and Organization	6	339,969	2	32,200	1	96,211
VI: Curriculum and Training for Computer Application	17	567,483	13	526,424	1	248,544
TOTAL	72	$5,606,819	50	$4,969,689	14	$3,622,855

Total Projects Supported in Computers by Bureau of Research since Inception of Program: 210
Estimated Total Investment since Inception of Program: $35,570,430

II. OTHER OFFICE OF EDUCATION SUPPORT OF COMPUTER ACTIVITIES

A. Title III, Elementary-Secondary Education Act of 1965, Supplementary Centers and Services

Other Office of Education legislative authorizations, aside from those administered by the Bureau of Research, are now providing support for educationally significant uses of computers. Foremost among these is Title III of the Elementary and Secondary Education Act of 1965, administered by the Bureau of Elementary and Secondary Education. The purpose of this title is to provide grants for supplementary educational centers and services. It seeks to stimulate and assist in the development of exemplary elementary and secondary school programs and to serve as models for regular school programs. For Fiscal Years 1966, 1967 and 1968, the Title III program has approved some 155 individual computer-related projects for support at a cost of $22,271,778. Of this amount, 67 were planning projects and 88 were actual operational projects with costs totaling $4,472,308 for planning and $17,799,470 for operational projects respectively. The majority of these projects deal with computer-assisted instruction, the use of computers for school administration, student programing, guidance, counseling, testing, and classroom instruction in programing and computer technology.

B. Title I, Elementary-Secondary Education Act of 1965, Educationally Deprived Children

In addition to Title III, Title I of the same Act is providing some support for computer application. Title I is also administered by the Bureau of Elementary and Secondary Education. The purpose of Title I is to provide financial assistance to local educational agencies in areas with concentrations of low-income families. This assistance will enable these areas to expand and improve educational programs designed to meet the special needs of educationally deprived children. One particularly large effort has taken from in the Philadelphia Public Schools, where some $1.2 million was spent in Fiscal Year 1966 for equipment development and installation of a computer-assisted instructional system, placing 8 remote terminals in each of 4 high schools.

The implementation of the first high school computer programing course in the State of Oklahoma was made possible by $6,000 of Title I funds. The Title I money allowed the local school district to rent computers. The remaining $12,000 is from the local school budget and provided for the teachers' salaries, maintenance of the machines, and the procurement of the necessary supplies. The program is operating at the Altus Senior High School. Classes are limited to about 25 high school seniors who have studied advanced mathematics, i.e., algebra, trigonometry, geometry, and calculus. Originally the program was a noncredit class for highly motivated students who were economically and culturally disadvantaged. The course is now accredited and provides early experiences in computer programing and advanced concepts in mathematics and science. During the past 4 years, the class has produced a National Champion, two third-place winners, and one second-place winner in the National High School Computer Contest sponsored by the Association of Educational Data Systems.

By linking a computer in Raleigh, North Carolina, to a high school classroom in East Providence, Rhode Island, mathematics becomes a stimulating experience for pupils who were lagging behind their grade level. In all, 60 sophomores are involved in the program. Two general mathematics classes are used, one as a control group and the other as the experimental group. Both groups were tested before the program began and again at the end. During the year the control group takes a general mathematics course, using traditional methods of solving their problems. The experimental group learns the language and techniques of a computer and solves their problems on it. Classes are held in a room equipped with a teletype which is connected through a local computer bank to the center. The computer services are rented with $3,977 of Title I money. The East Providence school system is the first in the State and one of the first in New England to experiment with the use of computers on the secondary school level.

III. TOTAL ESTIMATED COSTS

While it is difficult to identify all programs which support computer activities in education and to determine the resources spent on such work, it is possible to locate the major funding sources and their related costs.

SUPPORT OF COMPUTERS IN EDUCATION

Administrative Organization	Estimate of Expenditures	Legislative Authority
1. Bureau of Research		ESEA Title IV
a. Project Support	$ 35,570,430	NDEA Title VI, VII
b. R&D Centers	864,000	Vocational Education Act
c. Educational Laboratories	2,719,378	
d. ERIC	4,087,000	
2. Bureau of Elementary-Secondary Education		ESEA Title I, III
a. Educationally Deprived Children	1,200,000[3]	
b. Supplementary Centers and Services	22,271,778	
ESTIMATED TOTAL	$ 66,712,586	

IV. NEW PROGRAMS

Two new pieces of legislation offer great potential for U.S.O.E. support of computer activities in education.

First, the Education Professions Development Act of 1967 provides grants to improve the quality of teaching and to help meet critical shortages of adequately trained educational personnel in elementary-secondary schools (including pre-school and adult and vocational programs) and in post-secondary vocational schools. This Act provides resources which could be used in up-grading staff in the area of computer sciences and computer use in education.

Secondly are the 1968 Amendments to the Higher Education Act of 1965. Title VIII of this Act deals with Networks for Knowledge. In addition to other cooperative arrangements, the Title provides for the establishment and joint operation of electronic computer networks to participating institutions for such purposes as financial and student records, student course work, or the transmission of library materials.

---

[3] Computer-related work is not a reporting category under this legislation and complete data would have to be obtained from the 50 States.

APPENDIX A

Bureau of Research Computer-Related Research Projects for Fiscal Years 1967, 1968 and 1969

OFFICE OF EDUCATION

Bureau of Research

Computer-Related Research Projects

Category I: Computer-Assisted Instruction (CAI) and Computer-Managed Instruction (CMI)

Project Number	Investigator/ Institution	Project Title	FY'67 Funds	FY'68 Funds	FY'69 Funds	FY'70 Funds	Total Cost	Duration
EP 000 009 (5-0586)	Edgar R. Garrett New Mexico State University	Speech and Language Therapy under an Automated Stimulus Control System	$62,675	$9,232			$137,988	9/1/65-1/31/68
EP 000 082 (5-0544)	Dana S. Scott Stanford Univ.	Developing New Materials for High School Geometry	51,192				101,546	7/1/65-6/30/67
EP 000 127 (5-0652)	J. A. Starkweather California Univ.	Computer Science Instruction in Elementary Grades	76,212	19,050			152,421	9/1/65-8/31/67
EP 000 142 (5-0679)	Patrick Suppes Stanford Univ.	Development of Mathematical Concepts in Children	45,547				227,723	7/1/62-8/31/67
EP 000 144 (5-0684)	Richard C. Atkinson Patrick Suppes Stanford Univ.	An Automated Primary Grade Reading and Arithmetic Curriculum for Culturally Deprived Children	180,220				920,166	7/1/64-12/31/67
EP 000 200 (5-0917)	Stephen Abrahamson Univ. of Southern California	A Developmental Study of Medical Training Simulators for Anestheseologists	136,731	4,364			272,130	9/1/65-1/31/68
EP 000 241 (5-1081)	Rob Roy Rensselaer Polytechnic Institute	Computer Aided Instruction for a Course in Bodean Algebra and Logic Design					9,450	4/15/66-9/15/67

Project Number	Investigator/ Institution	Project Title	FY'67 Funds	FY'68 Funds	FY'69 Funds	FY'70 Funds	Total Cost	Duration
EP 000 256 (5-1119)	Frank Marzocco Robert H. Davis Michigan State University	Interaction of Individual Differences with Methods of Presenting Programmed Instructional Materials by Teaching Machine and Computer					$32,384	6/1/66-12/31/67
EP 000 265 (5-1179)	J. A. Easley Illinois Univ.	A Project to Develop and Evaluate a Computerized System for Instructional Response and Analysis	75,726				149,696	10/1/65-9/30/68
EP 000 331 (6-1310)	Mary A. MacDougall Virginia Univ.	Methods of Presenting Programmed Science Materials to Fourth Grade Pupils of Varying Ability and Achievement	31,492				64,940	6/15/66-4/14/68
EP 000 362 (6-1762)	Ernest Burkman Florida State University	The Development and Evaluation of a Science Curriculum for Grades 7, 8, and 9	219,174	655,658	166,820	166,820	1,624,604	6/20/66-8/31/70
EP 000 477 (5-8334)	Kenneth H. Wodtke Pennsylvania State University	Random Versus Ordered Sequencing in Computer-Assisted Instruction					8,400	6/10/66-3/31/67
EP 000 488 (5-0035)	Harold E. Mitzel George L. Brandon Pennsylvania State University	Experimentation with Computer-Assisted Instruction in Technical Education		206,000	303,000		984,081	6/1/65-5/31/69
EP 000 763 (5-1194)	Harold Mitzel Pennsylvania State University	The Development and Presentation of Four Different College Courses by Computer Teleprocessing					219,059	4/1/64-12/31/66
EP 000 840 (5-0311)	Jesse Richardson Mass. State Dept. of Education	Teaching Mathematics through Use of a Time-Shared Computer	13,636				191,987	6/1/65-4/30/67

Project Number	Investigator/ Institution	Project Title	FY'67 Funds	FY'68 Funds	FY'69 Funds	FY'70 Funds	Total Cost	Duration
EP 000 955 (6-1493)	Patrick Suppes Richard Atkinson Stanford Univ.	Stanford Program in Computer-Assisted Instruction	$559,356				944,469	6/29/66-6/30/68
EP 010 168 (6-1458)	T. Smith Florida State Univ.	The Development of Pre-vocational Education Literacy Courses for Use with Computer-Assisted Instruction of Disadvantaged Youths and Adults	113,304				223,387	6/1/66-5/31/68
EP 010 143 (5-0141)	John F. Cogswell System Development Corporation	Use of Computer Technology in Vocational Counseling					179,625	12/3/65-8/31/67
EP 010 196 (5-1332)	Gilbert B. Rozran Systems Operation Support, Inc.	A Study of the Effectiveness of a Military-Type Computer Based Instructional System When used in Civilian High School Courses in Electronics and Auto Mechanics					141,108	4/1/66-3/31/67
EP 010 310 (7-0071)	Duncan Hansen Florida State University	Research and Implementation of Collegiate Instruction of Physics via Computer-Assisted Instruction	236,734				236,734	10/15/66-8/14/68
EP 010 565 (7-0400)	Joseph B. Margolin George Washington University	Education in the Seventies - A Study and Description of Model School Systems of the Next Decade, Utilizing Computer Assisted Instruction	57,989				57,989	2/1/67-9/1/67
EP 010 641 (7-E-063)	Robbin R. Hough Michigan State University	Development and Testing of a Systems Model of the Classroom Relevant to Classroom Teaching and Computer-Assisted Instruction	9,864				9,864	5/1/67-12/31/67

Project Number	Investigator/ Institution	Project Title	FY'67 Funds	FY'68 Funds	FY'69 Funds	FY'70 Funds	Total Cost	Duration
EP 010 744 (7-1037)	Edwin F. Shelley E. F. Shelley and Company, Inc.	Systems Management Assistance to the Office of Education in the Development of a New Comprehensive Secondary School Curriculum	$48,809	$372,975	$260,906		$682,690	5/5/67- 11/5/69
EP 010 918 (7-0760)	Ned C. Deihl Pennsylvania State University	Development and Evaluation of Computer Assisted Instructional Instrumental Music	19,066	22,920	6,474		48,460	6/28/67- 6/27/70
EP 011 020 (7-1209)	Patrick Suppes J. A. Van Campen	Application of Mathematical Learning Theory to Second-Language Acquisition with Particular Reference to Russian		104,425			104,425	9/1/67- 8/31/68
EP 011 163 (8-F-001)	William W. Kennan Gerald L. Ericksen Minnesota State Dept. of Education	A Study for the Coordination of Education Information and Data Processing from Kindergarten through College		8,858			8,858	7/1/68- 2/28/69
EP 010 942 (7-9006)	John Bilinski General Learning Corporation	A Cost Study of Educational Media Systems and Their Equipment Components (Vol. 3 - CAI)	82,381				82,381	6/28/67- 2/10/68
EP 011 256 (8-B-087)	Roger L. Sisson Martin F. Stankard Pennsylvania Univ.	Optimal Use of a Computer Based Instruction System in an Existing Urban School District		9,458			9,458	6/24/68- 4/24/69
EP 011 269 (8-I-026)	Richard C. Atkinson Stanford Univ.	Computer-Based Instruction in Spelling - An Investigation of Optimal Strategies for Presenting Instructional Material		8,775			8,775	4/1/68- 11/30/68
EP 011 310 (8-0664)	Pauline Atherton Syracuse Univ.	Development of a Computer-Based Laboratory Program for Library Science Students Using L.C./Marc Tapes		104,480			104,480	6/24/68- 12/23/69

Project Number	Investigator/ Institution	Project Title	FY'67 Funds	FY'68 Funds	FY'69 Funds	FY'70 Funds	Total Cost	Duration
EP 011 105 (8-0157)	Alexander Schure John Thesbald New York Institute of Technology	A Computer-Managed System for Individualizing and Optimizing Education		$296,880	$594,600	$594,600	$1,486,080	5/1/68-4/30/71
8-0446	Alexander Schure New York Institute of Technology	Development of a Multi-Media Course in Physics for the U.S. Naval Academy		375,000	525,000	245,000	1,145,000	3/1/68-2/28/71
8-0447	J. Sterling Livingston Sterling Institute	Development of a Multi-Media Course in Economics for the U.S. Naval Academy		240,660	302,000	100,000	642,660	3/1/68-2/28/71
8-0448	Donald Tosti Westinghouse Learning Corp.	Development of a Multi-Media Course in Leadership for the U.S. Naval Academy		400,000	500,000	450,000	1,350,000	6/28/68-5/26/71
8-0509	Karl Zinn Univ. of Michigan	An Evaluative Review of Conversational Uses of Computers in Education			69,780		69,780	
Category II: Programing for Specialized Data Development and Analysis								
EP 000 316 (6-1190)	Ann Schack Joseph Schack American Printing House for the Blind	Computer Translation, Grade Two Braille from Print	20,340	24,600			69,540	6/1/66-5/31/69
EP 000 333 (6-1318)	Ellis B. Page Connecticut Univ.	Analysis of Essays by Computer					74,081	6/16/66-10/1/67
EP 000 662 (5-8246)	Lawrence F. McNamee East Texas State University	A Bibliography of English and American Literature Dissertations Accepted by American, British and German Universities from 1864-1964					10,513	6/1/65-11/30/66
EP 010 005 (5-0909)	Gordon R. Wood Southern Illinois University	Sub-Regional Speech Variations in Vocabulary, Grammar and Pronunciation					14,492	5/3/66-9/30/67

Project Number	Investigator/ Institution	Project Title	FY'67 Funds	FY'68 Funds	FY'69 Funds	FY'70 Funds	Total Cost	Duration
EP 010 220 (5-1313)	Frederic Cassidy University of Wisconsin	Completion of Collecting and Preparation for Editing a Dictionary of American Regional English	$74,400	$179,500			$328,300	7/1/65-8/31/68
EP 010 389 (6-8925)	Calvin C. Nelson University of Southern California	A Planning Project to Study the Feasibility of Computer Production of Braille Materials for Public School Blind Children	9,600				9,600	11/4/66-7/31/67
EP 010 536 (6-1363)	Abraham I. Katsh New York University	The Construction of a Computer Program for the Classification of Hebrew Word Stems	23,303				23,303	1/1/67-12/31/67
EP 010 745 (7-8045)	Maurice F. Tauber Jessica L. Harris Columbia Univ.	A Study of the Computer Arrangeability of Complex Terms Occurring in a Major Tool Used in Subject Analysis	7,500				7,500	6/1/67-5/31/68
EP 011 002 (7-E-189)	Robert B. Kane Purdue Research Foundation	Reduction of Errors due to the Position of Items in the Administration of the Semantic Differential Questionnaire		9,998			9,998	2/1/68-8/31/68
EP 011 233 (8-0114)	Donald Leton Hawaii University	Computer Program to Convert Word Orthography to Phoneme Equivalents		14,517			14,517	5/3/68-5/2/69
8-0677	Abraham I. Katsh New York Univ.	The Construction of an Algerithm for Stem Recognition of the Hebrew Language (cont. of Project Number 6-1263)						
8-0678	John A. Hutchins U. S. Naval Academy	An Investigation into the Elements of Spoken Portuguese		10,490			10,490	6/15/68-6/15/69

Project Number	Investigator/ Institution	Project Title	FY'67 Funds	FY'68 Funds	FY'69 Funds	FY'70 Funds	Total Cost	Duration
EP 011 368 (8-I-081)	John J. Bruha University of Southern Calif.	Stimulus Approach Tendencies of Learners as a Factor in Instructional Materials Evaluation		$4,037			$4,037	6/17/68-12/31/68
		Category III: Computer Models and Simulation						
EP 000 363 (6-1774)	Thomas F. Pettigrew Harvard University	Study of School Integration	75,454	31,353			203,715	6/27/66-6/26/69
EP 000 561 (5-0272)	Eugene Oxhandler Syracuse University	The Computer Simulation of a Statewide Film Library Network, A Feasibility Study					57,421	5/1/65-12/31/66
EP 001 023 (6-1519)	Warren Boecklen Cooperating Schools A-V Corp. of St. Louis County	A Computer Study of the Allocation of Channels and Placement of Transmitters for 2500 Megacycle Fixed-Station Service in a Metropolitan Area Containing Many Eligible Applicants for Licensing	31,989				31,989	10/10/66-6/1/67
EP 010 275 (6-8329)	Gene V. Glass Illinois Univ.	Analysis of Time-Series Quasi-Experiments	4,256				4,256	10/24/66-12/31/67
EP 010 378 (6-8133)	Arnold Reisman University of Wisconsin	Flow of Doctorate Holders into College and University Staffs	9,940				9,940	9/1/66-9/1/68
EP 010 478 (6-8209)	Donald Zimmerman East Carolina College	An Investigation of Non-Independence of Components of Scores on Multiple Choice Tests	7,128				7,128	9/30/66-9/29/67
EP 010 766 (6-1819)	David V. Tiedeman and others Harvard University	An Information System for Vocational Decisions under Section 4(c) of the Vocational Education Act of 1963	415,000	553,875	379,016		1,567,840	6/30/66-7/31/69

Project Number	Investigator/ Institution	Project Title	FY'67 Funds	FY'68 Funds	FY'69 Funds	FY'70 Funds	Total Cost	Duration
EP 010 830 (7-0733)	Bruce M Siegenthaler Harold E. Mitzel Pennsylvania State University	The Development and Programming of a Simulated Pure Tone Audiometer	$78,025				$78,025	6/16/67- 6/15/68
EP 011 177 (8-D-049)	Tony A. Ross Roscoe A. Boyer Mississippi Univ.	Development of a Special Computer Program to Design School Bus Routes		8,598			8,598	6/1/68- 12/31/68
EP 011 201 (8-A-025)	Barrett Hazeltine Brown University	Instruction Using Experiments in a Computer		5,500			5,500	6/28/68- 5/31/69
EP 011 216 (8-8051)	Albert E. Beaten Beaten Associates, Princeton, N. J.	Computer Models of Student Achievement		4,000			4,000	5/15/68- 7/15/68
		Category IV: Data Banks and Information Retrieval Systems						
EP 000 172 (5-0791)	M. M. Miles California State College	A Communications System for Higher Education	25,511				93,246	3/1/65- 6/30/67
EP 000 336 (6-1347)	Roger W. Shuy Michigan State University	A Study of Social Dialects in Detroit	3,780				125,320	3/22/66- 12/31/67
EP 000 344 (6-1502)	Walter J. Foley Iowa University	Educational Information Project	123,889	80,000			639,726	2/2/66- 8/31/69
EP 001 009 (7-0227)	Garry R. Walz American Personnel and Guidance Assoc. Washington, D.C.	The Design and Implementation of Information Systems for Pupil Personnel Services	8,236				8,236	3/10/67- 4/9/67
EP 001 013 (7-0259)	Eugene Oxhandler Syracuse Univ.	A Prototype System for a Computer Based Statewide Plan Film Library Network - A Model for Operation	81,002				81,002	12/16/66- 12/15/67

Project Number	Investigator/ Institution	Project Title	FY'67 Funds	FY'68 Funds	FY'69 Funds	FY'70 Funds	Total Cost	Duration
EP 001 044 (7-8381)	Stuart C. Sherman Providence Public Library, R.I.	The Development and Pilot Operation of a System to Reclassify Older Books and Process New Books under the Library of Congress Classification System for a Public Library Currently Employing the Dewey Decimal Classification	$7,808				$7,808	6/30/67- 6/30/68
EP 010 182 (6-1369)	Bruce R. Joyce Columbia Univ.	Use of a Data Storage and Retrieval System to Teach Elementary School Children Concepts and Modes of Inquiry in the Social Sciences					52,088	6/1/66- 6/30/68
EP 010 530 (6-1532)	Cloyd D. Gull Indiana University Foundation	Automation for Preparation of Syllabi and Bibliographies for College Instruction	25,545				25,545	10/5/66- 5/31/69
EP 010 700 (6-8910)	Charles Vento University of Southern Calif.	A Systems Approach for Automating the Cataloging and Distribution of Educational Motion Pictures	7,548				7,548	5/1/67- 7/30/68
EP 010 770 (7-1159)	Donald P. Squires Smithsonian Institution	An Information Storage and Retrieval System for Biological and Geological Data	292,927				292,927	6/21/67- 12/21/68
EP 010 771 (7-1145)	Allen B. Veaner Stanford Univ.	Bibliographic Automation of Large Library Operations Using a Time-Sharing System (Project Ballots)	417,490				417,490	6/26/67- 12/26/68
EP 010 772 (7-1085)	M. E. Maron Univ. of Calif., Berkeley	An Information Processing Laboratory for Education and Research in Library Science	141,763				141,763	6/15/67- 12/14/68
EP 010 843 (7-1089)	S. Lubetzky UCLA	Descriptive Cataloging, Development of Principles of Cataloging, Phase I	56,301				56,301	6/15/67- 12/14/68

Project Number	Investigator/ Institution	Project Title	FY'67 Funds	FY'68 Funds	FY'69 Funds	FY'70 Funds	Total Cost	Duration
EP 010 845 (7-1129)	Paul J. Fasana Richard H. Logsdon Columbia University	A Computer Based System for Reserve Activities in a University Library	$90,000				$90,000	6/1/67-12/1/68
EP 010 849 (7-1140)	Ben Ami Lipetz Yale University	Study of User Requirements in Identifying Desired Works in a Large Library	109,219				109,219	6/15/67-5/31/69
EP 010 856 (7-1268)	Lavahn Overmyer Case Western Reserve Univ.	Library Automation - A Critical Review	14,991				14,991	6/29/67-2/28/69
EP 010 925 (7-1083)	M. E. Maron University of Calif., Berkeley	A Study of the Organization and Search of Bibliographic Holdings Records in On-line Computer Systems	179,719	309,873			498,592	6/15/67-6/30/69
EP 010 934 (7-1182)	H. L. Resnikoff J. L. Dolby R and D Consultants Co., Los Altos, California	An Evaluation of the Utility and Cost of Computerized Library Catalogs	25,077				25,077	6/30/67-6/29/68
EP 011 155 (8-G-029)	Lawrence F. McNamee East Texas State University	A Bibliography Both in Manuscript Form and on Computer Tapes of All English and American Literature Dissertations Accepted by American, British and German Universities 1865-1968		6,209			6,209	6/1/68-8/31/68
EP 011 257 (8-B-089)	Harry B. Lincoln State University of New York, Albany	Development of Computerized Techniques in Music Research with Emphasis on the Thematic Index		10,000			10,000	6/30/68-6/30/69
EP 011 371 (8-0292)	James L. Dolby R and D Consultants Company	A Study of the Cost of Maintaining and Updating Library Card Catalogs		14,980			14,980	6/28/68-6/27/69

Project Number	Investigator/ Institution	Project Title	FY'67 Funds	FY'68 Funds	FY'69 Funds	FY'70 Funds	Total Cost	Duration
EP 011 378 (8-0697)	J. A. Kennan EDUCOM - Inter-university Communications Council	The Educational Information Network		$135,000			$135,000	6/30/68- 6/30/70
8-0814	Menahem Mansoor University of Wisconsin	Politics and Diplomacy in the Arab World: 1930-1967 Documentary and Chronological Study, Storage, Analysis, and Retrieval by Use of Computer Programs						
9-0161	Roger K. Summit Lockheed	ERIC On-Line Retrieval System			23,000		23,000	
		Category V: Computers in Administration and Organization						
EP 000 474 (5-8199)	Allen Kent Pittsburgh Univ.	Study of a New Approach to Class Scheduling Problems					7,620	6/1/65- 12/31/66
EP 000 711 (5-8176)	Gordon Anderson Texas University	The Development of a Student Accounting System					8,958	6/1/65- 11/30/66
EP 010 308 (6-8380)	Leonard H. Chaffee Robert W. Zeller State Univ. of N.Y., Albany	Cost Analysis of Automated Scheduling					6,800	6/1/66- 7/31/67
EP 010 352 (5-8414)	Robert C. Meier Washington Univ.	Development of a Computer Program for Use in the Analysis of Future Land, Building and Staff Requirements in Institutions of Higher Learning	7,586				7,586	10/1/66- 9/30/67

Project Number	Investigator/ Institution	Project Title	FY'67 Funds	FY'68 Funds	FY'69 Funds	FY'70 Funds	Total Cost	Duration
EP 010 374 (6-2836)	F. R. Burnham Iowa State Dept. of Public Instruction	A Demonstration Center to Implement and Test the School Property Accounting System Presented in Handbook III, U.S. Dept. of HEW	$50,247				$50,247	12/1/66-12/31/67
EP 010 467 (6-2271)	Allen H. Barton Columbia Univ.	Application of Electronic Computer Techniques to Racial Integration in School Systems	59,086				59,086	9/1/66-10/31/67
EP 010 586 (6-8758)	Morris J. Daniels San Diego State College	A Study of the Effects of Computers on the Occupational Adjustment of a Professional Group	9,000				9,000	6/1/67-11/30/68
EP 010 665 (7-9000)	D. G. Lewis General Learning Corporation	A Feasibility Study of a Central Computer Facility for an Educational System	129,050				129,050	4/20/67-9/7/67
EP 011 138 (8-I-066)	June R. Chapin Notre Dame College Belmont, Calif.	The Financial Support, Usage Decision Making and Planning of Computer Centers in Higher Education		7,200			7,200	6/18/68-8/31/69
7-9001	Jack Stone International Business Machines	Feasibility Study for a Remote Terminal Centralized Computer System	85,000				85,000	5/1/67-9/7/67
8-9011	H. S. Bright Computation Planning, Inc.	A Single Integrated Central Computer System for Secondary and Junior College Institutions		25,000	96,211		121,211	10/9/67-10/5/68

Category VI: Curriculum and Training for Computer Application

Project Number	Investigator/ Institution	Project Title	FY'67 Funds	FY'68 Funds	FY'69 Funds	FY'70 Funds	Total Cost	Duration
EP 000 619 (6-2084)	William W. Cooley Amer. Inst. for Research in Behavioral Sciences	Program for Training in Computer and Multivariate Applications to Educational Research					$30,000	9/1/66-6/30/67
EP 000 940 (7-1059)	James J. Fast Association for Educational Data Systems	The Relationship of Automatic Data Processing Training Curriculum and Methodology in the Federal Government	19,878				19,878	5/15/67-7/15/67
EP 000 945 (7-8318)	John Schmid Colorado State College	Training Institute for Research Personnel in the Theory of Multiple Regression Formulation of Problems and Computer Utilization	4,725				4,725	8/14/67-8/19/67
EP 000 946 (7-E-050)	Marina E. Axeen Illinois Univ.	Teaching Library Use to Undergraduate--Comparison of Computer-based Instruction and the Conventional Lecture	6,838				6,838	4/1/67-8/31/67
EP 000 933 (7-0602)	Russell T. Gregg Univ. of Wisconsin	Research Training Institute for Personnel of the State Departments of Education	35,942				35,942	3/9/67-7/14/67
EP 000 969 (7-0715)	Carl E. Thornbled Research Council of Great Cities Program for School Improvement	Great Cities Research Council Educational Communications Project	107,796	49,596			157,392	1/9/67-6/30/68
EP 000 978 (6-8280)	Karl L. Zinn Univ. of Michigan	Integration of Programed Instruction in an Independent Study Program	8,906				8,906	9/15/66-3/14/68

Project Number	Investigator/ Institution	Project Title	FY'67 Funds	FY'68 Funds	FY'69 Funds	FY'70 Funds	Total Cost	Duration
EP 001 024 (7-1038)	James W. Altman American Institute for Research in Behavioral Sciences	Orientation of Educators and Behavioral Scientists of Information Systems	$107,146				$107,146	6/1/67-5/31/68
EP 010 077 (6-2502)	Earle T. Hawkins Towson State College	Conference on Curricular and Instructional Innovation in State Colleges and Universities					34,520	5/2/66-1/31/67
EP 010 126 (5-0144)	Kendrick F. Bangs Colorado Univ.	Curricular Implications of Automated Data Processing for Educational Institutions					153,960	1/1/66-3/31/68
EP 010 157 (6-1489)	Douglas M. Fellows Hartford Univ.	Experimental Curriculum for Electro-Mechanical Technicians in Computer and Business Machines Technology	15,800	7,000			98,800	6/15/66-10/15/69
EP 010 206 (6-2437)	Lewis E. Wall Colorado State University	A Study of the Effectiveness of Federally Supported Business Data Processing Summer Institutes					14,440	6/20/66-8/31/67
EP 010 224 (5-8455)	Edward Y. George Bentley College of Accounting and Finance	Development of a Mathematics Curriculum for Undergraduate Business Students	3,400	5,600			9,000	2/1/67-8/31/69
EP 010 336 (6-1861)	William J. Moore Bucknell Univ.	Development of an Internship and a Computer-Based Research Program as an Integral Part of a Graduate Program in Educational Research					19,980	5/1/66-8/31/67
EP 010 509 (7-0175)	George McGregor Providence College	Inservice Training in Computer Assisted Instruction for Vocational Teachers	19,926				31,743	12/28/66-6/30/67

Project Number	Investigator/ Institution	Project Title	FY'67 Funds	FY'68 Funds	FY'69 Funds	FY'70 Funds	Total Cost	Duration
EP 010 566 (7-8239)	Thomas Long Altoona Area School District	Counselor Training in Statistical Analysis Via Electronic Processing for Research on Local and Regional Student Data	$9,867				$9,867	5/14/67-9/25/67
EP 010 663 (7-C-015)	Eliezer Naddor John Hopkins University	Inventory Systems Laboratory	3,700				3,700	3/6/67-12/5/67
EP 010 672 (7-0435)	Alex G. Morphonios Miami-Dade Junior College	Computer-Aided Drafting and Design Summer Institute	19,762				19,762	4/14/67-8/31/67
EP 010 682 (7-0822)	Francis Tuttle Oklahoma State Board for Vocational Education	Summer Institute to Train Data Processing Teachers for the New Oklahoma State-Wide Computer Science System, Phase II	35,000				35,000	4/15/67-6/30/68
EP 010 754 (7-8276)	Harry B. Lincoln State University of New York	Development of Computerized Techniques in Music Research with Emphasis on the Themetic Index	10,000				10,000	5/1/67-4/30/68
EP 010 833 (7-0910)	Edward F. Turner, Jr. Washington and Lee University	Study of the Implications of Modern Technology in Small College Libraries	75,000				75,000	6/15/67-12/14/68
EP 010 840 (7-1071)	William Deterline General Programmed Teaching, Palo Alto	Development of a Programed Course for Group Instruction of Secondary Teachers and Administrators in the Techniques of Instructural Technology	83,797				83,797	6/27/67-5/15/68

Project Number	Investigator/ Institution	Project Title	FY'67 Funds	FY'68 Funds	FY'69 Funds	FY'70 Funds	Total Cost	Duration
EP 011 035 (7-D-080)	David D. Woodbridge Florida Institute of Technology	A Method for Evaluating Student Progress in Undergraduate Computer Science by use of Automated Problem Sets		$7,780			$7,780	3/1/68-10/31/68
EP 011 204 (8-A-009)	Gilbert Shapiro Boston College	Programming for the Facile Use of the IBM 360 Computer as a Laboratory Instrument in Social Science Statistics Courses		9,594			9,594	7/1/68-2/28/68
EP 011 222 (8-0449)	Neil S. Humphries Commonwealth Development Assn. Harrisburg, Pa.	Curriculum Development Mobile Instruction Laboratory for Educators		29,829			29,829	6/15/68-9/15/68
EP 011 224 (8-0727)	Herbert A. Smith National Science Teachers Assn.	The Development of Materials for the Training of Science Education Personnel in Educational Technology		65,458			65,458	5/1/68-12/31/68
EP 011 236 (7-1229)	Donald P. Estevan Harry F. Silberman System Development Corporation	Implementation of Vocational Counseling System		96,867	248,544	82,854	428,265	6/18/68-10/31/70
EP 011 288 (8-0775)	William W. Cooley and others Pittsburgh Univ.	Post Doctoral Fellowship Program in Educational Research		42,000			42,000	6/30/68-8/31/69
EP 011 317 (8-0788)	Lee J. Cronbach and others Stanford Univ.	Post Doctoral Fellowship Program in Educational Research		20,904			20,904	6/30/68-6/30/69
EP 011 320 (8-0791)	Lee J. Cronbach and others Stanford Univ.	Post Doctoral Fellowship Program in Educational Research		18,850			18,850	6/30/68-6/30/69
EP 011 393 (8-8038)	Thomas Long Altoona Area School District	Counselor Research Training		9,956			9,956	6/24/68-8/24/68

ADDENDUM

Category	Project Number	Investigator/ Institution	Project Title	FY'67 Funds	FY'68 Funds	FY'69 Funds	FY'70 Funds	Total Cost	Duration
IV.	EP 010 890 (7-1042)	Gabriel Ofiesh Catholic Univ. of America	State of the Art of Dial Access Information Retrieval	$61,518				$61,518	6/28/67- 4/30/68
IV.	EP 010 937 (7-1213)	Heinz Von Foerster Robert T. Chien Illinois Univ.	Acquisition of Knowledge in Relation to Information Storage and Retrieval	250,000				250,000	6/22/67- 2/28/69
I.	EP 011 096 (7-0109)	John C. Flanagan American Institute for Research in Behavioral Sciences	A Computer-Based Vocational Guidance System		90,000	147,504		237,504	4/1/68- 1/31/70
VI.	EP 011 113 (8-9022)	Del H. Schalock Northwest Regional Educational Lab.	A Competency Based, Field Central Systems Approach to Elementary Teacher Education		163,000			163,000	3/1/68- 10/31/68
I.	EP 011 125 (8-E-010)	S. D. Conte Purdue Research Foundation	Computer-Assisted Instruction in Teaching Numerical Methods		10,000			10,000	4/1/68- 10/31/69

APPENDIX B

Bureau of Research Computer-Related Research Projects--Abstracts

This section contains resumes of the research projects funded by the Bureau of Research that are listed in the six sections of Appendix A. The projects are arranged in numerical sequence by the EP (Educational Project) Accession Numbers as listed in the Current Project Information (CPI) report. The CPI is the Bureau's method of cataloging all Research projects it funds. In Appendix A this number is the first number found at the left of the project description.

EP 000 009 24 $137,988 Mueller
SPEECH AND LANGUAGE THERAPY UNDER AN AUTOMATED STIMULUS CONTROL SYSTEM.
Investigator - Garrett, Edgar R.
New Mexico State University, University Park
Bureau No. - BR-5-0586 Proposal date - 04-12-65
Handicapped Children and Youth Branch, DESR
Contract OEC-6-10-198
FY66 - $66,081. 09-01-65.06-30-66* FY67 - $62,675.
07-01-66.06-30-67* FY68 - $9,232. 07-01-67.10-31-67
Descriptors - SPEECH THERAPY, *SPEECH IMPROVEMENT, *LANGUAGE DEVELOPMENT, LANGUAGE INSTRUCTION, *STIMULUS DEVICES, *AUTOINSTRUCTIONAL PROGRAMS, *PROGRAMED INSTRUCTION, MENTAL RETARDATION, RETARDED CHILDREN, ADULT PROGRAMS, CLINICS, LINGUISTICS, INFORMATION PROCESSING, TASK PERFORMANCE, AUDIOLINGUAL METHODS, PILOT PROJECTS, ILLINOIS TEST OF PSYCHOLINGUISTICS, TEMPLIN DARLEY TESTS OF ARTICULATION, TEMPLIN SHORT TEST OF SOUND DISCRIMINATION, UNIVERSITY PARK
Start date - 09-01-65 End date - 10-31-67

Programed instruction based upon stimulus control will be studied for application to the speech and language disorders of adults and children. The application will be made through an automated speech correction system (ASCS) and supervised by school personnel other than speech therapists. Instruction provided by the ASCS should be effective in producing marked changes to functional misarticulation over a period of time. Influences and changes will be noted in the articulation of mental retardates and in the articulation and/or verbal linguistic function of both childhood and adult aphasics. The data collected during the experiments will be analyzed in linguistic and information theory terms. A permanent audiotape record will be made of the performance of each subject using wide area telephone service. A electronic counter and a digital computer will be used for automatic data reduction. The final statistical analysis will be made on an IBM 1620 computer. Planned duration of the program is 26 months. (JH)

EP 000 082 24 $101,546 Schult
DEVELOPING NEW MATERIALS FOR HIGH SCHOOL GEOMETRY.
Investigator - Scott, Dana S.
Stanford University, California
Bureau No. - BR-5-0544 Proposal date - 11-30-64
Curriculum and Demonstration Branch, DESR
No. 9, California
Contract OEC-6-10-021
FY66 - $50,354. 07-01-65.06-30-66* FY67 - $51,192.
07-01-66.06-30-67
Descriptors - GEOMETRIC CONCEPTS, GEOMETRY, *CALCULUS, *MATHEMATICS INSTRUCTION, MATHEMATICAL CONCEPTS, MATHEMATICAL ENRICHMENT, PROGRAMED INSTRUCTION, *SUPERIOR STUDENTS, PROGRAMED MATERIALS, *HIGH SCHOOL STUDENTS, STANFORD, CALIFORNIA
Start date - 07-01-65 End date - 06-30-67

Material on geometric transformations in ways suitable for study by high school teachers and superior students will be developed and organized. Materials will be prepared for teaching transformations and will be tested in a computer based laboratory. In this situation a student will be seated in a booth containing a typewriter keyboard, a microfilm display unit, and a cathode ray tube display unit. By touching the cathode tube with a special light pen or by typing simple directions, the student can change the position of the figure on the screen, introduce or eliminate parts and identify points and lines in answer to a question. After the machine program for the sequence of lessons has been prepared, it will be tested on selected high school students and teachers. Parallel written materials will be produced for use without the highly specialized machine. The source will consist of approximately 30 lessons of 1 hour each. The most important gain in introducing transformations is expected to be the practice that students will have in working with functions. (WB)

EP 000 127 24 $152,421 Schult
COMPUTER SCIENCE INSTRUCTION IN ELEMENTARY GRADES.
Investigator - Starkweather, J. A.
California University, San Francisco
Bureau No. - BR-5-0652 Proposal date - 08-10-65
Curriculum Branch, DESR
California Congressional District No. 6
Contract OEC-6-10-131
FY66 - $57,159. 09-01-65.06-30-66* FY67 - $76,212.
07-01-66.06-30-67* FY68 - $19,050. 07-01-67.08-31-67
Descriptors - *COMPUTERS, COMPUTER PROGRAMS, *ELEMENTARY EDUCATION, ELEMENTARY SCHOOL STUDENTS, ELEMENTARY SCHOOL TEACHERS, *ELEMENTARY GRADES, *CURRICULUM DEVELOPMENT, SAN FRANCISCO, CALIFORNIA
Start date - 09-01-65 End date - 08-31-67

The use of a small digital computer for problem solving using different ability levels of pupils in grades four through eight will be evaluated. Concern for instructional content will not be relevant to the study design. Specifically, the objectives will be to construct procedures for computation of both numerical and non-numerical problems and to investigate the characteristics of a computer programing language which can best develop curriculum materials and teaching techniques. A group of volunteer elementary teachers will be introduced to a computer language which makes use of natural english expression. Teachers will then introduce content appropriate to their own classroom situation and prompt their pupils to attempt to construct questions and evaluate computer responses. Each child will be exposed to the computer by developing programs. Evaluation will be conducted to determine the effect of computer instruction on each student's ability to handle problems and to develop logical and original solutions. This investigation will further knowledge about methods of developing algorithms using the computer as a device for immediate testing of logical thought as well as knowledge of specific information. (HB)

EP 000 142 24 $227,723 Schult
DEVELOPMENT OF MATHEMATICAL CONCEPTS IN CHILDREN.
Investigator - Suppes, Patrick
Stanford University, California
Bureau No. - BR-5-0679 Proposal date - 11-20-61
Instructional Materials and Practices Branch, DESR
California Congressional District No. 10
Contract OEC-3-10-009
FY64 - $45,544. 07-01-63.06-30-64* FY65 - $45,544.
07-01-64.06-30-65* FY66 - $45,544. 07-01-65.06-30-66*
FY67 - $45,547. 07-01-66.08-31-67
Descriptors - *CONCEPT FORMATION, *MATHEMATICAL CONCEPTS, *MATHEMATICS INSTRUCTION, *STIMULUS DEVICES, *VISUAL DISCRIMINATION, CALIFORNIA, ELEMENTARY SCHOOL STUDENTS, MARKOV PROCESS, MATHEMATICS MATERIALS, STANFORD, VISUAL PERCEPTION
Start date - 07-01-62 End date - 08-31-67

Stimulus sampling theory in childrens' development of mathematical concepts will be analyzed. The factors of study will be as follows--(1) acquisition and transfer of elementary concepts of set theory by children 5 to 8 years of age, (2) acquisition and transfer of simple geometric concepts by children 4 to 9 years of age, and (3) learning of mathematical proofs by children 6 to 9 years of age. Experiments will involve 30 to 100 subjects each, with each subject being required to make a minimum of 30 to 100 responses. Series of stimulus presentations will be programed on IBM cards, read out by an IBM reader connected with an 026 IBM punch, and relayed by a television camera which will pick up the stimulus pattern from the card and display it on a television screen to the child. The stimulus display, response made by the child, and the connection procedure utilized for each trial will then be punched on data cards. Other experimental equipment to be used will include time interval meters to measure the reaction time for each trial and apparatus for electrical or photographic recording of eye movements made by the subject in the process of making a response. Mathematical and statistical methods of analysis to be used will employ methods appropriate to stochastic processes, particularly Markov processes and chains of infinite order with a finite number of states. (GC)

EP 000 144 24 $920,166 Schult
AN AUTOMATED PRIMARY-GRADE READING AND ARITHMETIC CURRICULUM FOR CULTURALLY DEPRIVED CHILDREN.
Investigator - Atkinson, Richard C.; Suppes, P.
Stanford University, California
Bureau No. - BR-5-0684 Proposal date - 03-20-64
Instructional Materials and Practices Branch, DESR
California Congressional District No. 10
Contract OEC-5-10-050
FY65 - $156,276. 07-01-64.06-30-65* FY66 - $583,670.
07-01-65.06-30-66* FY67 - $180,220. 07-01-66.12-31-67

Descriptors - *BEHAVIORAL SCIENCES, *COMPUTER ASSISTED INSTRUCTION, *CULTURAL DISADVANTAGEMENT, *CURRICULUM RESEARCH, *PRIMARY EDUCATION, AUTOINSTRUCTIONAL METHODS, CURRICULUM DEVELOPMENT, DISADVANTAGED YOUTH, INSTRUCTIONAL MATERIALS, LEARNING DIFFICULTIES, MATHEMATICS CURRICULUM, PHONOTAPE RECORDINGS, READING PROGRAMS, SEQUENTIAL LEARNING, STANFORD.

Start date - 07-01-64 End date - 12-31-67

Detailed behavioral analysis will be undertaken to identify the points in beginning reading and mathematics curriculums that are particularly difficult for culturally deprived children in the primary grades to learn. Specifically, the investigation will apply to obstacles encountered by these children in acquiring basic skills in reading and mathematics, and the use of behavioral analysis and automated devices as means to overcome these obstacles. Emphasis will be placed on the preparation of available written materials in a sequential order on the preparation of auditory material to accompany the written materials. Behavioral analysis of student responses to curriculums will be accomplished by automated instrumentation. Both visual and auditory curriculum materials will be presented to pupils individually. Appropriate instruments are to be provided for recording pupil responses and response times. Given response sequences will be applied to methods of analysis much used in mathematical learning theory. By providing behavioral analysis in a setting that will be designed to accommodate individual differences, learning difficulties should be minimized. (HB)

EP 000 172 24 $93,246 Neudling

A COMMUNICATIONS SYSTEM FOR HIGHER EDUCATION.

Investigator - Milfs, M. M.

California State College, Dominguez Hills

Bureau No. - BR-5-0791 Proposal date - 01-06-65

Research Branch, DHER

California Congressional District No. 38

Contract OEC-5-10-300

FY65 - $19,974. 03-01-65.06-30-65* FY66 - $47,761. 07-01-65.06-30-66* FY67 - $25,511. 07-01-66.06-30-67

Descriptors - *COLLEGE ADMINISTRATION, *COLLEGE HIGH SCHOOL COOPERATION, *COMPUTER ORIENTED PROGRAMS, *COMPUTER PROGRAMS, *COLLEGES, ADMINISTRATION, PROGRAM ADMINISTRATION, SCHOOL ADMINISTRATION, ADMINISTRATIVE POLICY, ADMINISTRATIVE PERSONNEL, EDUCATIONAL EXPERIMENTS, EDUCATIONAL FACILITIES, EDUCATIONAL EQUIPMENT, EDUCATIONAL RESOURCES, SYSTEMS ANALYSIS, SYSTEMS APPROACH, SYSTEMS CONCEPTS, SYSTEMS DEVELOPMENT, DOMINGUEZ HILLS

Start date - 03-01-65 End date - 06-30-67

The primary goal of this project is to develop an operating information system at the California State College at Palos Verdes in order that instructional and management decisions may be based upon data which are pertinent, timely, and comprehensive. This information system will be based upon an analysis of both the internal requirements of the college and the external requirements as they relate to the total state college system and other governmental and non-governmental agencies which request or require information. The research has been so designed that the information system can serve as a data resource which can be utilized in educational research for decision making. The principle underlying the project is three-dimensional. The information will be classified, it will be stored in such a way as to be evaluated in reference to its magnitude and its relationship to other information similarly stored. (LM)

EP 000 200 24 $272,130 Adrian
A DEVELOPMENTAL STUDY OF MEDICAL TRAINING SIMULATORS FOR ANESTHESEOLOGISTS.
Investigator - Abrahamson, Stephen
University of Southern California, Los Angeles
Bureau No. - BR-5-0917 Proposal date - 66
Instructional Materials and Practices Branch, DHER
California Congressional District No. 21
Contract OEC-6-10-135
FY66 - $131,035. 09-01-65.06-30-66* FY67 - $136,731.
07-01-66.06-30-67* FY68 - $4,364. 07-01-67.01-31-68
Descriptors - *COMPUTERS, *EDUCATIONAL EQUIPMENT, *MEDICAL EDUCATION, *SIMULATION, *STUDENT EVALUATION, ANESTHESIOLOGY, ELECTRONIC EQUIPMENT, LOS ANGELES, STUDENT REACTION, STUDENT VOLUNTEERS
Start date - 09-01-65 End date - 01-31-68

This experimental and developmental project will demonstrate the practicability of using a computer (which simulates a patient) to teach medical students necessary skills in administering drugs without discomfort and danger to a patient. A room, closely resembling an actual operating amphitheater, will be used to house the computer-controlled, patient machine. About 15 first-year residents in anesthesiology will be the subjects in a test of learning which results from student interaction with the machine. Toward the conclusion of their training the residents will be observed and tested in an actual operating room. They will be compared with a control group trained in a traditional manner. Student and faculty competence will be determined by interviews. Avoidance of discomfort and harmful errors with respect to the patient-machine will be registered by another computer. Information about the system will be provided by inspections of other anesthesiologists, administrative personnel, and faculty members of California medical schools. The results will be published and presented at appropriate meetings. (HB)

EP 000 241 56 $9,450 Adrian
COMPUTER AIDED INSTRUCTION FOR A COURSE IN BOOLEAN ALGEBRA AND LOGIC DESIGN.
Investigator - Roy, Rob
Rensselaer Polytechnic Institute, Troy, New York
Bureau No. - BR-5-1081 Proposal date - 66
Instructional Materials and Practices Branch, DHER
New York Congressional District No. 30
Grant OEG-1-6-051081-0660
FY66 - $9,450. 04-15-66.09-15-67
Descriptors - *COMPUTER ASSISTED INSTRUCTION, *COMPUTER ORIENTED PROGRAMS, *INSTRUCTIONAL TECHNOLOGY, *PROGRAMED INSTRUCTION, ACADEMIC ACHIEVEMENT, AUTOINSTRUCTIONAL AIDS, BACKGROUND, COLLEGE STUDENTS, COMPUTERS, NEW YORK, PROGRAMED MATERIALS, PROGRAMING, TROY
Start date - 04-15-66 End date - 09-15-67

Evidence will be obtained on the usefulness of computer-aided instruction for entering students (college freshmen and graduate students) with insufficient academic backgrounds to begin a regular curriculum sequence. This pilot study will use the subject of Boolean algebra and logic as a prerequisite for graduate sequences in the fields of digital computers, automation, and learning machines. A sample of 40 students will be drawn from among those seniors and graduate students who would regularly be taking two logic design courses in sequence. The sample will be divided into two categories--(1) students who will take the logic design courses in normal sequence, and (2) students who will take a computer-aided course, equal to the first course, and the regular second course simultaneously. The experimental computer-aided course will be evaluated by comparing student scores on a comprehensive examination administered on the material of the regular first course, and student performance in the second course. Standard statistical measures will be applied. (GC)

EP 000 256 56 $32,384 Adrian
METHODS OF PRESENTING PROGRAMED INSTRUCTIONAL MATERIALS BY TEACHING MACHINE AND COMPUTER.
Investigator - Marzocco, Frank N.; Davis, Robert H.
Michigan State University, East Lansing, Human Learning Research Institute
Bureau No. - BR-5-1119 Proposal date - 66
Instructional Materials and Practices Branch, DHER
Michigan Congressional District No. 6
Grant OEG-3-6-051119-1211
FY66 - $32,384. 06-01-66.12-31-67
Descriptors - *COMPUTER ORIENTED PROGRAMS, *INDIVIDUAL CHARACTERISTICS, *LEARNING PROCESSES, *PROGRAMED INSTRUCTION, COGNITIVE PROCESSES, COLLEGE STUDENTS, EAST LANSING, INDIVIDUAL DIFFERENCES, MICHIGAN, PROGRAMED MATERIALS, STUDENT CHARACTERISTICS
Start date - 06-01-66 End date - 12-31-67

Determinations will be made on the following points--(1) whether certain major, independent parameters of programed instruction interact with college students' individual differences, (2) whether college students are able to select the method of programed instruction which best suits their learning conditions, and (3) what roles computer-assisted instruction (CAI) actually plays with respect to this population. About 600 enrollees in remedial algebra will serve as the experimental sample. At least 60 more algebra students will be observed in control groups for cross-validation purposes. Two treatments of programed learning materials will be prescribed for part of the experimental sample, and two additional treatments will be offered which emphasize subject choice in selecting the materials. Factors to be measured during treatments will include exit behavior, performance, attitudes, and scores on criterion tests. Such variables as sex, grade-point average, age, and personality differences will be considered, as well. Correlational technique and regression lines will be employed to analyze the resulting data. Where inconsistencies are indicated on the "during-treatment" factors, the student option variable will determine if the computer is necessary to help students select their proper program treatment. This research should provide important implications in terms of the effective adaptation of computers to educational programs. (HB)

EP 000 265 24 $149,696 Schult
A PROJECT TO DEVELOP AND EVALUATE A COMPUTERIZED SYSTEM FOR INSTRUCTIONAL RESPONSE AND ANALYSIS.
Investigator - Easley, J. A.
Illinois University, Urbana
Bureau No. - BR-5-1179 Proposal date - 65
Instructional Materials and Practices Branch, DESR
Illinois Congressional District No. 22
Contract OEC-6-10-184
FY66 - $73,970. 10-01-65.09-30-66* FY67 - $75,726.
10-01-66.09-30-68
Descriptors - *COMPUTER ORIENTED PROGRAMS, *INSTRUCTIONAL MATERIALS, *PROGRAMED INSTRUCTION, *SYSTEMS ANALYSIS, *SYSTEMS DEVELOPMENT, COMPUTER PROGRAMS, ILLINOIS, URBANA
Start date - 10-01-65 End date - 09-30-68

A computerized system will be developed and tested for diagnosing faults in lesson materials, including texts, workbooks, teacher handouts, and tests. The procedure will be designed to provide detailed feedback to authors on command, thus facilitating an analysis of student response to his materials. The data provided will serve as a basis for revision and improvement of the materials. The research and development procedures will consist of adapting a computer-based instructional system to achieve the capability of supplying diagnoses of student lesson materials. The adaptation of the system and the development of system programs will result in a "system for instructional response analysis." One phase will be the development of a control logic for use with general text materials. Authors and evaluators in a broad range of subject-matter areas will collaborate in developing the system of diagnosis and testing the capability of the system. (GC)

EP 000 316 40 $ 69,540 Mueller
COMPUTER TRANSLATION, GRADE TWO BRAILLE FROM PRINT.
Investigator - Schack, Ann; Schack, Joseph
American Printing House for Blind, Louisville, Kentucky
Bureau No. - BR-6-1190 Proposal date - 66
Handicapped Children and Youth Branch, DESR
Kentucky Congressional District No. 6
Grant OEG-2-6-061190-1578
FY66 - $24,600. 06-01-66.05-31-67* FY67 - $20,340.
06-01-67.05-31-68* FY68 - $24,600. 06-01-68.05-31-69
Descriptors - MATERIAL DEVELOPMENT, *BRAILLE, READING, BLIND, COMPUTERS, INFORMATION PROCESSING, *AUTOMATION, *DATA PROCESSING, *READING PROCESSES, *EDUCATIONAL IMPROVEMENT, SPECIAL EDUCATION, LOUISVILLE, KENTUCKY
Start date - 06-01-66 End date - 05-31-69

An advanced data processing operation will be developed for the translation of print to "grade two" braille such that--(1) translations will conform to high standards of quality, (2) materials of broad range of content and format can be accommodated, and (3) the greatest possible degree of efficiency will exist between the operation and the system emphasized. Specifically, ways of automating the translation phase of the braille plate-making process will be studied. A study series will be conducted, directed toward--(1) extending of a pioneer translation program so that a wider range of materials can be translated, (2) exploration of new approaches to programing the translation of print to grade two braille, (3) refinement of the translation program to maximize accuracy of translation and reduce the human intervention required, and (4) analysis of the economics of the use of automated braille production systems. The project will contribute to the development of programs for computer translation of print to braille when combined with automated braille plate production, will increase the time needed to produce braille materials and increase production capabilities of braille publishers. (HB)

EP 000 331 56 $64,940 Cummings
METHODS OF PRESENTING PROGRAMED SCIENCE MATERIALS TO FOURTH GRADE PUPILS OF VARYING ABILITY AND ACHIEVEMENT.
Investigator - MacDougall, Mary A.
Virginia University, Charlottesville
Bureau No. - BR-6-1310 Proposal date - 08-31-65
Research Branch, DESR
Virginia Congressional District No. 8
Grant OEG-2-6-061310-1743
FY66 - $33,448. 06-15-66.06-14-67* FY67 - $31,492.
06-15-67.04-14-68
Descriptors - *PROGRAMED MATERIALS, *COMPUTER ORIENTED PROGRAMS, *OPTIONAL BRANCHING, STUDENT CHARACTERISTICS, *SCIENCE INSTRUCTION, *TEACHING METHODS, ACADEMIC ABILITY, ACADEMIC ACHIEVEMENT, GRADE 4, CHARLOTTESVILLE, VIRGINIA, BLOOM'S TAXONOMY
Start date - 06-15-66 End date - 04-14-68

The objectives of this project will be to determine--(1) methods of programed instruction which are suitable for various levels of ability, achievement, of knowledge, and conceptual attainment, and (2) the effectiveness of these instructional methods as remedial branches. High- and low-ability, fourth grade students with comparable expected achievement will use programed science materials of four different branching types. Science concepts will be classified using "Bloom's taxonomy." Tutorial sessions will follow, and a final evaluation will occur with students of varying ability levels using prepared materials. (LP)

EP 000 333 24 $74,081 Beezer
ANALYSIS OF ESSAYS BY COMPUTER.
Investigator - Page, Ellis B.
Connecticut University, Storrs, Bureau of Educ. Research
Bureau No. - BR-6-1318 Proposal date - 04-08-66
Basic Studies Branch, DESR
Connecticut Congressional District No. 2
Contract OEC-1-6-061318-1214
FY66 - $74,081. 06-16-66.10-01-67
Descriptors - *COMPOSITION (LITERARY), *COMPUTER PROGRAMS, *DATA ANALYSIS, *ESSAYS, *GRADING, LINGUISTICS, MEASUREMENT, RATING SCALES, STORRS, WRITING SKILLS
Start date - 06-16-66 End date - 10-01-67

The proposed work, entitled "Project Essay Grade II," will continue research related to the computer analysis of english exposition. In general terms, the objectives of this program are to--(1) further identify important characteristics of student prose which are analyzable through specially devised computer programs, (2) develop computer programs for measurement of these qualities or related variables as they occur in school essays, (3) analyze the computer-generated objective data in relation to subjective measures of the essay dimensions, (4) develop through this procedure greater understanding of the human rating process as applied to objectively describable prose characteristics, (5) study those aspects of essay description which appear most promising for useful feedback to teachers and students, and explore the feasibility of computer commentary about student essays, and (6) set forth larger strategies for the more promising future explorations of computer analysis of essays. Hundreds of student essays on assigned topics will be rated independently on content, style, organization, mechanics, and overall quality. These ratings will form the basis of the computer analysis programs to be developed. (WB)

EP 000 336 24 $125,320 Beezer
A STUDY OF SOCIAL DIALECTS IN DETROIT.
Investigator - Shuy, Roger W.
Michigan State University, East Lansing
Bureau No. - BR-6-1347 Proposal date - 08-25-65
Basic Studies Branch, DESR
Michigan Congressional District No. 6
Contract OEC-3-6-061347-0636
FY66 - $121,540. 03-22-66.03-31-67* FY67 - $3,780.
04-01-67.12-31-67
Descriptors - *DIALECT STUDIES, *LANGUAGE RESEARCH, *LINGUISTICS, *SOCIAL DIFFERENCES, *URBAN CULTURE, EAST LANSING, LANGUAGE PATTERNS, MICHIGAN, SPEECH HABITS
Start date - 03-22-66 End date - 12-31-67

The linguistic features (pronunciation, grammar, vocabulary, and syntax) of the barious English-speaking subcultures of Detroit will be delineated on this research program. In addition, it will--(1) seek efficient means of gathering language data in cities, (2) investigate effective uses of computers in the storing, retrieval, and analysis of language data in an urban dialect study, (3) provide actual language data for practical applications in the classroom, and (4) determine the linguistic clues to social class, the function of language in establishing social boundaries, and the processes of language in an urban area, After a developmental phase and the training of field workers are completed, language data will be gathered by structured linguistic interviews, questionnaires, conversational interviews, multiple choice tests, and tape recording. Consultants and staff will determine analysis techniques and procedures during the developmental stage of the project. (WB)

EP 000 344 24 $639,726 Boerrigter
EDUCATIONAL INFORMATION PROJECT.
Investigator - Foley, Walter J.
Iowa University, Iowa City
Bureau No. - BR-6-1502 Proposal date - 10-65
Organization and Admin. Studies Branch, DESR
Iowa Congressional District No. 1
Contract OEC-3-6-061502-0429
FY66 - $435,837. 02-02-66.01-31-67* FY67 - $123,889.
02-01-67.06-30-68* FY68 - $80,000. 07-01-68.08-31-69
Descriptors - *EDUCATIONAL RESOURCES, *INFORMATION DISSEMINATION, *INFORMATION RETRIEVAL, *INFORMATION STORAGE, *RESOURCE MATERIALS, CARDPAC SYSTEM, COMPUTERS, EDUCATIONAL PROGRAMS, EDUCATIONAL RESEARCH, INFORMATION PROCESSING, INSTRUCTIONAL MATERIALS, IOWA, IOWA CITY, RESOURCE CENTERS
Start date - 02-02-66 End date - 08-31-69

This project will develop, field test, and initiate a system in which a central agency can gather, process, integrate and disseminate educational information. This information will be used by students, teachers, and school districts from the elementary school population in an entire state. It will be designed to continue the Cardpac system of educational accounting begun under Grant E-301 dated April 1964. The procedures are summarized into four phases--(1) the proposal stage involving the design, consultation, and collating of information, (2) the developmental stage including activities such as the development and review of related studies, (3) the administration stage, and (4) the analysis stage which allows for the feedback of information about pupils at the local, district, and state levels. (HB)

EP 000 362 24 $1,624,604 Johnson
THE DEVELOPMENT AND EVALUATION OF A SCIENCE CURRICULUM FOR GRADES SEVEN, EIGHT, AND NINE.
Investigator - Burkman, Ernest
Florida State University, Tallahassee
Bureau No. - BR-6-1762 Proposal date - 12-02-65
Instructional Materials and Practices Branch, DESR
Florida Congressional District No. 2
Contract OEC-2-6-061762-1745
FY67 - $219,174. 06-01-67.08-31-67* FY68 - $655,658.
09-01-67.08-31-68* FY69 - $166,820. 09-01-68.08-31-69*
FY70 - $166,820. 09-01-69.08-31-70
Descriptors - *COMPUTER ASSISTED INSTRUCTION, *CURRICULUM DEVELOPMENT, *JUNIOR HIGH SCHOOLS, *SCIENCE CURRICULUM, *SCIENCE PROGRAMS, ACHIEVEMENT, APTITUDE, FLORIDA, INSTRUCTION, SCIENCE EDUCATION, TALLAHASSEE
Start date - 06-20-66 End date - 08-31-70

The development and evaluation of a coordinated science curriculum for grades seven through nine is planned. The objectives are--(1) to instill an understanding of science, scientists, and the scientific enterprise, (2) to develop an understanding of selected principles of science, and (3) to increase the student's facility in using certain intellectual skills related to the scientific process. The subjects will be physical science for the seventh and eighth grades and earth and biological sciences for the ninth grade. It is planned to utilize computer-assisted instructional methods to analyze individual student performance on each step of the curricular structure and correlate response patterns with measures of achievement and specific attitudes. (GC)

EP 000 363 24 $203,204 Carnett
STUDY OF SCHOOL INTEGRATION.
Investigator - Pettigrew, Thomas F.
Harvard University, Cambridge, Massachusetts
Bureau No. - BR-6-1774 Proposal date - 06-03-66
Basic Studies Branch, DESR
Massachusetts Congressional District No. 8
Contract OEC-1-6-061774-1887
FY66 - $96,908. 06-27-66.06-26-67* FY67 - $75,454.
06-27-67.06-26-68* FY68 - $30,842. 06-27-68.06-26-69
Descriptors - *ECOLOGY, *NEGROES, *OPINIONS, *PSYCHOLOGICAL STUDIES, *RACIAL INTEGRATION, CAMBRIDGE, COMPUTER ORIENTED PROGRAMS, COMPUTER PROGRAMS, DEMOGRAPHY, ECOLOGICAL FACTORS, INTEGRATION EFFECTS, INTEGRATION STUDIES, PUBLIC OPINION, RURAL POPULATION, SCHOOL INTEGRATION, URBAN POPULATION
Start date - 06-27-66 End date - 06-26-69

An attempt will be made in this study to develop empirically-derived models of school integration processes in both the south and the urban north. These social psychological models will combine ecological and demographic census materials with opinion survey results. An attempt will be made to understand the integration patterns of schools in a wider perspective of structural and opinion change in American race relations. The general design of the research will involve the accumulation, organization, and formulation of a computer data system which will process a vast array of both ecological and opinion data. The operational system will be used to test rival theories, answer specific and practical questions, and feed in new data relevant to the integration process. All counties which had 200 or more Negroes in 1960 will be the units of analysis for the South. Voting precincts within cities of over 25,000 people will be the units of analysis for the urban North. (JC)

EP 000 474 24 $7,620 Neudling
STUDY OF A NEW APPROACH TO CLASS SCHEDULING PROBLEMS.
Investigator - Kent, Allen
Pittsburgh University, Pennsylvania, Knowledge Avail. Systems Center
Bureau No. - BR-5-8199 Proposal date - 05-24-65
Research Branch, DHER
Pennsylvania Congressional District No. 14
Contract OEC-5-10-334
FY65 - $7,620. 06-01-65.12-31-66
Descriptors - *SCHOOL REGISTRATION, ADMISSION (SCHOOL), COLLEGE ADMINISTRATION, *COMPUTER PROGRAMS, *SCHEDULING, CLASS SIZE, SYSTEMS ANALYSIS, *SYSTEMS DEVELOPMENT, PITTSBURGH, BEEKLEY INSITE
Start date - 06-01-65 End date - 12-31-66

The scheduling and registration of college students is a major problem today. The use of computers in school scheduling has shown various indications of being usable to react in real time and at low cost to changing parameters. The need, therefore, is for a low cost flexible system capable of examining the gamut of variables at one time, and of responding rapidly to unexpected changes that become evident only during registration. The purpose of this project is to investigate the use of such a system, the prototype Beekley Insite device, in school scheduling and registration applications. Instead of creating a mathematical model of a theoretical school scheduling problem, the scheduling and registration procedures of the University of Pittsburgh Graduate School of Library and Information Sciences will be examined initially. Course prerequisites and student schedule punched mylar tapes will be prepared for analysis on the Beekley Insite device, and proposals for both student schedules and courses will be either verified or negated. Potential ramifications resulting from the manipulations of the variables will be studied in an attempt to optimize the schedules and to determine the applicability of such a system to the real-time demands of student registration. (LP)

EP 000 477 56 $8,400 Molnar
RANDOM VERSUS ORDERED SEQUENCING IN COMPUTER-ASSISTED INSTRUCTION.
Investigator - Wodtke, Kenneth H.
Pennsylvania State University, University Park
Bureau No. - BR-5-8334 Proposal date - 01-27-65
Research Branch, DHER
Pennsylvania Congressional District No. 17
Grant OEG-1-6-058334-1819
FY66 - $8,400. 06-10-66.03-31-67

Descriptors - *COMPUTER PROGRAMS, EDUCATIONAL RESEARCH, *PROGRAMED INSTRUCTION, LEARNING, LEARNING DIFFICULTIES, *VERBAL ABILITY, ACHIEVEMENT TESTS, *MODERN MATHEMATICS, *AUDIOLOGY, COMPUTER ASSISTED INSTRUCTION, UNIVERSITY PARK
Start date - 06-10-66 End date - 03-31-67

A comparison of the effects of random versus ordered sequencing of instructional units is planned. The basic experimental design will be a 2x2 factorial design. The two independent variables will be (1) high and low student verbal ability, and (2) random versus ordered item sequences. The covariate or control variable will consider achievement pretests administered on the subject matter areas covered. Pretest scores will be controlled by means of analysis of covariance. Typing skill of students will be measured due to the typewriter mode of response input to the computer. The major dependent variable will be student post-test performance. The post-test will consist of two parts (1) one in which tests recall material covered in the program, and (2) one in which tests measure the ability of students to apply a principle taught in the program to new problems. Two instructional programs will be used -- modern mathematics and audiology. (HB)

EP 000 488 08 $984,081 Otte
EXPERIMENTATION WITH COMPUTER-ASSISTED INSTRUCTION IN TECHNICAL EDUCATION.
Investigator - Mitzel, Harold E.; Brandon, George L.
Pennsylvania State University, University Park
Bureau No. - BR-5-0035 Proposal date - 03-15-64
Instructional Materials and Practices Branch, DCVR
Pennsylvania Congressional District No. 23
Contract OEC-5-85-074
FY65 - $165,080. 06-01-65.05-31-66* FY66 - $310,001.
06-01-66.06-30-67* FY68 - $206,000. 07-01-67.06-30-68*
FY69 - $303,000. 07-01-68.05-31-69
Descriptors - *COMPUTER ASSISTED INSTRUCTION, *COMPUTERS, *EVALUATION, *PROGRAMED INSTRUCTION, *VOCATIONAL EDUCATION, EDUCATIONAL PROGRAMS, EDUCATIONAL RESEARCH, UNIVERSITY PARK
Start date - 06-01-65 End date - 05-31-69

A 4-year research and development program will explore the use of experimental teaching strategies in computer-assisted instruction for technical education programs. The plan is (1) to evaluate the articulation of computer-assisted instruction with other educational strategies, and, by careful experimentation, determine optimum ways of presenting core courses in technical education curriculums, (2) to prepare curriculum materials for computer presentation with emphasis in the instruction of post-high school students in communication skills, technical mathematics and engineering science, (3) to train an interdisciplinary group of individuals to prepare course materials and to do research on computer applications in technical education, and (4) to disseminate the information and evidence concerning the innovation of computer-assisted instruction and its application to occupational education. The project would aid in relieving the severe shortage of trained research workers in occupational education and to communicate the innovation of computer-assisted instruction to the public and the professions. (HB)

EP 000 561 64 $57,421 Lowdermilk
THE COMPUTER SIMULATION OF A STATEWIDE FILM LIBRARY NETWORK, A FEASIBILITY STUDY.
Investigator - Oxhandler, Eugene
Syracuse University, New York, Research Institute
Bureau No. - BR-5-0272 Proposal date - 65
Dissemination Branch, DRTD
New York Congressional District No. 34
Contract OEC-5-16-024
FY65 - $34,325. 05-01-65.06-30-65* FY66 - $23,096.
07-01-65.12-31-66
Descriptors - LIBRARY FACILITIES, *DATA PROCESSING, *INSTRUCTIONAL FILMS, *LIBRARY SERVICES, INFORMATION RETRIEVAL, *INFORMATION DISSEMINATION, MEDIA RESEARCH, RESEARCH, *FILMS, FILMSTRIPS, COMPUTER PROGRAMS, BOARDS OF COOPERATIVE EDUCATIONAL SERVICES, NEW YORK CITY
Start date - 05-01-65 End date - 12-31-66

An investigation is proposed for the purpose of determining feasibility of utilizing a central computerized booking, distribution, acquisition, and bookkeeping system for regional film libraries. All date on film holdings, booking and bookkeeping techniques, usage, and budgets will be gathered from existing boards of cooperative educational services. The Division of Educational Communications of the New York State Department of Education will contribute its productions and plans. A computer simulation program will be designed and the entire system will be tried in several alternate modes to determine the most economically feasible plan of operation. (RS)

EP 000 619 24 $30,000 Colby
PROGRAM FOR TRAINING IN COMPUTER AND MULTIVARIATE APPLICATIONS TO EDUCATIONAL RESEARCH.
Investigator - Cooley, William W.
American Institute for Research in Behavioral Sciences
Bureau No. - BR-6-2084 Proposal date - 66
Research Training Branch, DRTD
Pennsylvania Congressional District No. 14
Grant OEG-1-6-062084-1789
FY66 - $30,000. 09-01-66.06-30-67
Descriptors - EDUCATIONAL RESEARCH, EDUCATIONAL PROGRAMS, *DOCTORAL DEGREES, *GRADUATE STUDY, DATA PROCESSING, STATISTICAL ANALYSIS, FACTOR ANALYSIS, EVALUATION METHODS, SEMINARS, *RESEARCH METHODOLOGY, *COMPUTER ORIENTED PROGRAMS, INFORMATION PROCESSING, *RESEARCHERS, PITTSBURGH, PENNSYLVANIA, PROJECT TALENT
Start date - 09-01-66 End date - 06-30-67

Postdoctoral training over a 4-year period is planned to acquaint educational researchers with the applications of computer systems. Each trainee selected will complete an individual research project and a series of seminars. Topics of the individual seminars will include research methods, computer applications in educational research, statistical analysis, research methodology, and a case study of a previous research project named "Project Talent." (RS)

EP 000 662 24 $10,513 Lucas
A BIBLIOGRAPHY OF ENGLISH AND AMERICAN LITERATURE DISSERTATIONS ACCEPTED BY AMERICAN, BRITISH, AND GERMAN UNIVERSITIES FROM 1864-1964.
Investigator - McNamee, Lawrence F.
East Texas State University, Commerce
Bureau No. - BR-5-8246 Proposal date - 05-26-65
Comparative Research Branch, DHER
No. 4, Texas
Contract OEC-5-10-355
FY65 - $6,579. 06-01-65.05-31-66* FY66 - $3,934.
06-01-66.11-30-66
Descriptors - BIBLIOGRAPHY, *DOCTORAL DEGREES, LITERATURE, *ENGLISH LITERATURE, *AMERICAN LITERATURE, *COMPUTER PROGRAMS, DATA COLLECTIONS, COMMERCE, TEXAS, GERMANY, GREAT BRITAIN
Start date - 06-01-65 End date - 11-30-66

A comprehensive bibliographic effort will be undertaken, compiling a listing of all literature dissertations (English and American) that have been accepted by American, British, and German universities over the last 100 years. Listings of this work will be arranged under 22 major headings, including Anglo-Saxon, Linguistics, Middle-English, Chaucer, Shakespeare, Renaissance, Milton, the Drama, and the Novel. Two IBM cards will be made for each dissertation and lists prepared by machine processing for each respective university. These listings will then be sent to the universities, which granted degrees from the dissertations, for approval and additions. New cards will be punched from the resulting information and a final listing prepared and furnished to institutions on a world wide basis. This project should lead to new dissertations, and may even lead to a new field of study. (AW)

EP 000 711 24 $8,958 Tripp
THE DEVELOPMENT OF A STUDENT ACCOUNTING SYSTEM.
Investigator - Anderson, Gordon
University of Texas, Austin
Bureau No. - BR-5-8176 Proposal date - 05-24-65
Research Branch, DHER
No. 10, Texas
Contract OEC-5-10-341
FY65 - $8,958. 06-01-65.11-30-66
Descriptors - INFORMATION PROCESSING, *COLLEGE STUDENTS, *BACKGROUND, PSYCHOLOGICAL TESTING, ACADEMIC APTITUDE, *COMPUTER PROGRAMS, QUESTIONNAIRES, *INFORMATION SYSTEMS, AUSTIN, TEXAS
Start date - 06-01-65 End date - 11-30-66

A system of record-keeping for information about college students, including background data, psychological test scores, and past and current academic records will be developed in a form suitable for processing by computers. Information from the registrar of the University of Texas will be combined with data from the testing and counseling centers and with background information supplied by students on a specifically designed questionnaire. The latter will be in a form suitable for reading and automatic punching. The various items will be collated and read onto magnetic tapes. (AW)

EP 000 763 64 $219,059 Lowdermilk
THE DEVELOPMENT AND PRESENTATION OF FOUR DIFFERENT COLLEGE COURSES BY COMPUTER TELEPROCESSING.
Investigator - Mitzel, Harold
Pennsylvania State University, University Park
Bureau No. - BR-5-1194 Proposal date - 64
Dissemination Branch, DRTD
Pennsylvania Congressional District No. 17
Contract OEC-4-16-010
FY64 - $97,014. 04-01-64.06-30-64* FY65 - $119,984.
07-01-64.06-30-65* FY66 - $2,061. 07-01-65.12-31-66
Descriptors - *COMPUTER ASSISTED INSTRUCTION, *INSERVICE TEACHER EDUCATION, COLLEGE CURRICULUM, *COMPUTER PROGRAMS, *INSTRUCTIONAL MATERIALS, PROGRAMED INSTRUCTION, *MEDIA RESEARCH, UNIVERSITY PARK, COURSEWRITER
Start date - 04-01-64 End date - 12-31-66

A study is to be made of the feasibility of using teachers, who are unfamiliar with computer systems, to prepare subject materials for computer presentation. Four college-level courses will be prepared for computer presentation using the Coursewriter computer language. The computer assisted instruction (CAI) incorporating computer-controlled audiovisual components, will be field tested. A manual for using Coursewriter computer language will then be prepared. The CAI techniques used will be demonstrated to government representatives, academic professors, school administrators, and teachers and others concerned with improving educational media. (WN)

EP 000 840 24 $185,421 Schult
TEACHING MATHEMATICS THROUGH THE USE OF A TIME-SHARED COMPUTER.
Investigator - Richardson, Jesse O.
Massachusetts State Department of Education, Boston
Bureau No. - BR-5-0311 Proposal date - 08-24-64
Curriculum and Demonstration Branch, DESR
No. 9, Massachusetts
Contract OEC-5-10-320
FY65 - $8,999. 06-01-65.06-30-65* FY66 - $162,786.
07-01-65.06-30-66* FY67 - $13,636. 07-01-66.01-31-67
Descriptors - MATHEMATICAL ENRICHMENT, *MATHEMATICS INSTRUCTION, *COMPUTER BASED LABORATORIES, *PROGRAMED INSTRUCTION, *DIGITAL COMPUTERS, INSTRUCTIONAL INNOVATION, GRADE 6, GRADE 9, GRADE 11, CURRICULUM ENRICHMENT, ACHIEVEMENT, CAMBRIDGE, MASSACHUSETTS
Start date - 06-01-65 End date - 01-31-67

A mathematical laboratory will be developed based on a time-shared digital computer. Specific characteristics of this computer-based laboratory will be--(1) a terminal teletypewriter connected to the computer and operated on a time-shared mode to give participating mathematics students the feeling of personally working the computer, and (2) the availability of the computer on a continuous, real-time basis to encourage students to engage extensively in voluntary extracurricular use of the computer terminals. Students at three levels of maturity (Grades 6, 9, and 11) will participate. Experimental and control groups of approximately 25 subjects each will be used for data gathering exercises. The resulting data will be analyzed. It is believed that the findings will clearly show that the use of a computerized mathematics curriculum leads students to acquire a more thorough grasp of subject matter as measured by standard achievement tests. (JH)

EP 000 933 24 $35,942 Harbeck
RESEARCH TRAINING INSTITUTE FOR PERSONNEL OF THE STATE DEPARTMENTS OF EDUCATION.
Investigator - Gregg, Russell T.
Wisconsin University, Madison
Bureau No. - BR-7-0602 Proposal date - 67
Research Training Branch, DHER
Wisconsin Congressional District No. 2
Grant OEG-3-7-070602-2979
FY67 - $35,942. 03-09-67.07-14-67
Descriptors - *DATA PROCESSING, *EDUCATIONAL RESEARCH, *INSTITUTES (TRAINING PROGRAMS), *RESEARCH METHODOLOGY, *STATE OFFICIALS, MADISON, MEASUREMENT TECHNIQUES, PROGRAM ADMINISTRATION, RESEARCH SKILLS, RESEARCHERS, TRAINING
Start date - 03-09-67 End date - 07-14-67

The major purpose of the proposed research training institute is to improve the research knowledge and skills, and to stimulate the research interests of selected personnel of state departments of education in the Midwest. The institute will be offered in two separate 2-week sessions spaced 6 weeks apart in order that participants may return to their positions during the interim period. Instruction and learning will be centered on (1) measurement in educational research, (2) research design and methodology, (3) automatic data processing, and (4) research administration. The institute program will consist of group instruction in the mornings and individual and small-group laboratory work in the afternoons. In the laboratory sessions, participants will be encouraged and assisted to apply research concepts and procedures to their on-the-job problems. Approximately 30 trainees will be recruited and selected by the U.S. Office of Education to participate in the institute. Evaluative data will be obtained primarily by means of trainee responses to a questionnaire. (TC)

EP 000 940 24 $19,878 Otte
THE RELATIONSHIP OF AUTOMATIC DATA PROCESSING TRAINING CURRICULUM AND METHODOLOGY IN THE FEDERAL GOVERNMENT.
Investigator - Fast, James J.
Association for Education Data Systems
Bureau No. - BR-7-1059 Proposal date - 67
Instructional Materials and Practices Branch, DCVR
District of Columbia
Contract OEC-1-7-071059-3808
FY67 - $19,878. 05-15-67.07-15-67

Descriptors - *CONFERENCES, *DATA PROCESSING, *FEDERAL GOVERNMENT, *INSTRUCTIONAL TECHNOLOGY, *TRAINING, DISTRICT OF COLUMBIA, INSTRUCTIONAL MATERIALS

Start date - 05-15-67 End date - 07-15-67

An invitational 5-day working conference on the relationship of automatic data processing (ADP) training curriculum and methodology in the Federal Government will be held in Washington, D. C. The ultimate objective of this conference is to make recommendations for the establishment of an effective and efficient ADP training program utilizing new instructional methodologies. This training program will concentrate on new multi-media approaches utilizing new technology, such as videotape, educational television, programed instruction and computer assisted instruction. Topical specialists from outside the Federal Government and the Federal Government will be brought together for an in-depth discussion. Additional resource specialists will serve on four panel sessions. (TC)

EP 000 945 24 $4,725 Harbeck

TRAINING INSTITUTE FOR RESEARCH PERSONNEL IN THE THEORY OF MULTIPLE REGRESSION FORMULATION OF PROBLEMS AND COMPUTER UTILIZATION.

Investigator - Schmid, John

Colorado State College, Greeley

Bureau No. - BR-7-8318 Proposal date - 01-11-67

Research Training Branch, DHER

Colorado Congressional District No. 4

Grant OEG-1-7-078318-3714

FY67 - $4,725. 08-14-67.08-19-67

Descriptors - *COMPUTER PROGRAMS, *COMPUTERS, *INSTITUTES (TRAINING PROGRAMS), *RESEARCH SKILLS, *TEACHER EDUCATION, COMPUTER ORIENTED PROGRAMS, EDUCATIONAL PROGRAMS, GREELEY, RESEARCH TOOLS, RESEARCHERS, SERVICE EDUCATION, SPECIAL EDUCATION, STATISTICAL ANALYSIS, STATISTICAL STUDIES

Start date - 08-14-67 End date - 08-19-67

An institute sponsored by Colorado State College will be established for educational researchers who have a basic knowledge of statistical processes but who have not yet become familiar with formulating and solving problems using multiple regression techniques with computers. The institute will accomodate 25 participants and the selection will be made to provide wide geographical representation for more rapid dissemination of modern research methodology. The institute will last for 1 week and in addition to providing participants with the Persub iterative regression program it will make available (1) other complementary programs and (2) help in modifying these programs at the participant's local facilities. (PM)

EP 000 946 24 $6,838 Murnin

TEACHING LIBRARY USE TO UNDERGRADUATE--COMPARISON OF COMPUTER-BASED INSTRUCTION AND THE CONVENTIONAL LECTURE.

Investigator - Axeen, Marina E.
Illinois University, Urbana
Bureau No. - BR-7-E-050 Proposal date - 11-03-66
Regional Research, Office Associate Commissioner
Illinois Congressional District No. 22
Contract OEC-3-7-070050-3131
FY67 - $6,838. 04-01-67.08-31-67
Descriptors - *LIBRARY INSTRUCTION, *COMPUTER ASSISTED INSTRUCTION, *PROGRAMED INSTRUCTION, *LECTURE, *TEACHING TECHNIQUES, STUDENTS, LIBRARY SCIENCE, INSTRUCTIONAL TECHNOLOGY, URBANA
Start date - 04-01-67 End date - 08-31-67

The purpose of this study is to explore the possibilities of using computer-based instruction as a medium for teaching the use of the library to undergraduates. Comparison of results will be made between the experimental group using a computer-based teaching system called PLATO (Programmed Logic for Automatic Teaching Operations) and the control group learning by the traditional lecture method. Statistical analysis will be made between the performance of the two groups to determine if computer-based instruction is just as effective, or more so, than the conventional method. (TC)

EP 000 955 64 $944,469 Schult

STANDORD PROGRAM IN COMPUTER-ASSISTED INSTRUCTION.

Investigator - Suppes, Patrick; Atkinson, Richard
Stanford University, California
Bureau No. - BR-6-1493 Proposal date - 03-02-66
Instructional Materials and Practices Branch, DESR
California Congressional District No. 10
Contract OEC-4-6-061493-2089
FY66 - $385,113. 06-29-66.06-28-67* FY67 - $559,356. 06-29-67.06-30-68
Descriptors - *COMPUTER ASSISTED INSTRUCTION, *ELEMENTARY EDUCATION, *LANGUAGE ARTS, *READING INSTRUCTION, MATHEMATICS INSTRUCTION, STANFORD
Start date - 06-29-66 End date - 06-30-68

Computer-assisted instruction will be developed and evaluated in three closely related areas--(1) elementary school mathematics, (2) elementary-school reading, and (3) supplementary drill and maintenance exercises in mathematics and the language arts for the elementary school. The present proposal is submitted as an appendix to the prospectus for a national laboratory submitted October 13, 1965 to the Office of Education. The present proposal gives the details of the Stanford program for an interim basis until a decision is made about the constitution of a national laboratory. The primary focus of the Stanford program would be to develop and test computer-assisted curriculums in mathematics and language arts for the elementary school. The secondary focus proposed in the national laboratory prospectus would be suspended for the present. This means that an extensive effort in learning theory, the logic of complex concept formation, and systems analysis would be curtailed under the present program. (TC)

EP 000 969 24 $157,392 Koenig
GREAT CITIES RESEARCH COUNCIL EDUCATIONAL COMMUNICATIONS PROJECT.
Investigator - Thornblad, Carl E.
Research Council of Great Cities Program for School Improvement
Bureau No. - BR-7-0715 Proposal date - 01-01-67
Equipment Development Branch, DITD
Illinois Congressional District No. 3
Contract OEC-3-7-070715-3048
FY67 - $107,796. 01-09-67.03-31-68* FY68 - $49,596.
04-01-68.06-30-68
Descriptors - *COMMUNICATIONS, *INFORMATION SYSTEMS, *INSTRUCTIONAL IMPROVEMENT, *INSTRUCTIONAL TECHNOLOGY, *SYSTEMS DEVELOPMENT, CHICAGO, COMPARATIVE ANALYSIS, COMPUTER ORIENTED PROGRAMS, COMPUTER PROGRAMS, NATIONAL SURVEYS, PROGRAM PLANNING, RESEARCH OPPORTUNITIES, SCHOOL IMPROVEMENT, STATUS, SYSTEMS CONCEPTS
Start date - 01-09-67 End date - 06-30-68

The relative status and inventory of current automated system developments in member districts of the Research Council of the Great Cities Program for School Improvement will be studied. In addition, planning and coordinating activities will be provided to help develop a total communications capability designed to facilitate the transmission and utilization of research and application of multi-media for instructional improvement and related communications. A status and inventory study of computer and computer-oriented information systems presently in use will be conducted, and planning activities for identifying relative needs among the member districts will be pursued. Task force areas will be developed under which specific individual and cooperative projects may be undertaken. (GD)

EP 000 978 24 $8,906 Neubeck
INTEGRATION OF PROGRAMED INSTRUCTION IN AN INDEPENDENT STUDY PROGRAM.
Investigator - Zinn, Karl L.
Michigan University, Ann Arbor
Bureau No. - BR-6-8280 Proposal date - 10-20-65
Instructional Materials and Practices Branch, DHER
Michigan Congressional District No. 2
Contract OEC-3-7-068280-0317
FY67 - $89,906. 09-15-66.03-14-68
Descriptors - *INDEPENDENT STUDY, *INTEGRATED CURRICULUM, *INTERACTION, *LIBRARY MATERIALS, *PROGRAMED INSTRUCTION, ANN ARBOR, COLLEGE STUDENTS
Start date - 09-15-66 End date - 03-14-68

A strategy will be devised to integrate programed materials into a program of independent study, that will provide an effective combination of author presentation, teacher direction, and student control. The strategy will be applied to a first course in psychology to be evaluated, and will be documented and disseminated to encourage trial applications in other subject areas. Particular attention will be given to the interaction of student control and teacher direction in regard to self-study procedures and related tutorial efforts, project work, and group discussion. An attempt will be made to define the dimensions which underlie and confound superficial comparisons of treatments such as student and teacher control of self-study, or alternative uses of teacher time. (TC)

EP 001 009 24 $8,236 Harbeck

THE DESIGN AND IMPLEMENTATION OF INFORMATION SYSTEMS FOR PUPIL PERSONNEL SERVICES.

Investigator - Walz, Garry R.

American Personnel and Guidance Association, Washington, D. C.

Bureau No. - BR-7-0227 Proposal date - 67

Research Training Branch, DHER

District of Columbia

Grant OEG-2-7-070227-1641

FY67 - $8,236. 03-10-67.04-09-67

Descriptors - *COUNSELING SERVICES, *GUIDANCE PROGRAMS, *INFORMATION SYSTEMS, *INTERDISCIPLINARY APPROACH, *STUDENT PERSONNEL SERVICES, DISTRICT OF COLUMBIA, SIMULATION

Start date - 03-10-67 End date - 04-09-67

A special training project is to be held for 5 days preceding the Annual Convention of the American Personnel and Guidance Association. The training will focus upon (1) the development of an interdisciplinary conceptual base for pupil personnel work, (2) the use of tools for information searches including the use of the ERIC Clearinghouse for Guidance and Counseling, and (3) the design and implementation of an information system for use in programs of personnel services. The instructional format will include the use of lecture-demonstrations, laboratory sessions, team conferences, small group sessions, and simulation. Outcomes for the training are seen as (1) stimulation of interdisciplinary pupil personnel research, (2) widespread diffusion of information systems design, (3) dissemination of the scope and services of the Guidance and Counseling ERIC Center and hence greater national use of the Center, (4) the production of innovative training aids, and (5) development and application of an information system model to personal decision-making by counseling clients. (TC)

EP 001 013 56 $81,002 Broderick

A PROTOTYPE SYSTEM FOR A COMPUTER BASED STATEWIDE PLAN FILM LIBRARY NETWORK--A MODEL FOR OPERATION.

Investigator - Oxhandler, Eugene

Syracuse University, New York

Bureau No. - BR-7-0259 Proposal date - 08-66

Instructional Materials and Practices Branch, DESR

New York Congressional District No. 34

Contract OEC-1-7-070259-2656

FY67 - $81,002. 12-16-66.12-15-67

Descriptors - *COMPUTER PROGRAMS, *FILMS, *LIBRARY EXTENSION, *SYSTEMS ANALYSIS, *SYSTEMS DEVELOPMENT, MODELS, SYRACUSE

Start date - 12-16-66 End date - 12-15-67

Under a previous contract, the feasibility of a statewide film library network was demonstrated, numerous computer programs for analyzing and manipulating film usage were produced, and steps were taken toward the development of standardized procedures for booking, cataloging and accounting in film library operation. The proposed study will require (1) data collection and analysis, (2) programming and systems design, (3) modeling and pilot testing, and (4) actual operations of the film library network. Substantial economies in effort and expenditures will be realized through the utilization of programs and procedures developed under the earlier contract. Data will be collected from additional libraries chosen to further refine the representativeness of the sample. Data analysis and modeling will continue using existing statistical and simulation programs. Additional programming will be accomplished as needed and selected collections will be prepared for admission to the system. Parallel computer booking procedures with other libraries will be investigated and from five to ten Board of Cooperative Services Centers will become operational links in the computer network. (TC)

EP 001 023　　56　　$31,989　　Clemens
A COMPUTER STUDY OF THE ALLOCATION OF CHANNELS AND PLACEMENT OF TRANSMITTERS FOR 2500 MEGACYCLE FIXED-STATION SERVICE IN A METROPOLITAN AREA CONTAINING MANY ELIGIBLE APPLICANTS FOR LICENSING.
Investigator - Boecklen, Warren
Cooperating Schools A-V Corporation of St. Louis County, Missouri
Bureau No. - BR-6-1519　　Proposal date - 66
Research Utilization Branch, DITD
Contract OEC-3-7-001519-2004
FY67 - $31,989. 10-10-66.06-01-67
Descriptors - *COMPUTER PROGRAMS, *COMPUTERS, *COOPERATIVE PLANNING, *EDUCATIONAL TELEVISION, *TELEVISION RESEARCH, ST. LOUIS
Start date - 10-10-66　　End date - 06-01-67

The objectives of this study are (1) to develop a computer program which would be useful, nationally, in developing channel allocation and transmitter placement plans for urban areas having many school systems, (2) to determine the pattern of channel allocations and transmitter placements which will accommodate the potential users of 2500 megacycle television in the St. Louis metropolitan area, and (3) to determine those instances in which leased coaxial cables represent a preferable system for interconnection of schools for closed-circuit television (as opposed to 2500 megacycle interconnection) in the metropolitan St. Louis area. This study is undertaken because there is no local agency which has the power to control channel allocations to diverse public, parochial and college-level school systems, and a method of channel allocations and transmitter placements must be cooperatively developed. This method must be attractive enough to command voluntary submission of the various school systems. Short of a valid computer study which dispassionately operates upon objective and uniform data, it is unlikely that a human or group of humans can provide a plan which will be accepted by all. Metropolitan areas, having numerous school systems which are eligible applicants for FCC licenses to operate multichannel 2500 megacycle stations, are likely to saturate the spectrum, thus using up all channels, in a manner which does not most efficiently place transmitters for the available channels. (TC)

EP 001 024 56 $107,146 Cylke
ORIENTATION OF EDUCATORS AND BEHAVIORAL SCIENTISTS TO INFORMATION SYSTEMS.
Investigator - Altman, James W.
American Institute for Research in Behavioral Sciences
Bureau No. - BR-7-1038 Proposal date - 04-04-67
Library and Information Sciences Research Branch, DITD
Pennsylvania Congressional District No. 14
Contract OEC-1-7-071038-3914
FY67 - $107,146. 06-01-67.05-31-68
Descriptors - *DATA COLLECTION, *EDUCATIONAL RESOURCES, *INFORMATION RETRIEVAL, *INFORMATION SYSTEMS, *ORIENTATION, BEHAVIORAL SCIENCE RESEARCH, DATA PROCESSING, EDUCATIONAL RESEARCH, PITTSBURGH
Start date - 06-01-67 End date - 05-31-68

Materials and methods will be developed for the orientation of educators and behavioral scientists to systems capable of providing information in support of their work. This effort is expected to facilitate the work of practicing educators, educational researchers, and scientists who provide much of the knowledge base upon which educational technology is built. The facilitation will be achieved by providing means by which educators and behavioral scientists can more readily learn about information resources and techniques for exploiting them for more effective educational and related work. The proposed effort will involve the gathering of data concerning available information services and systems, organization of presents to educators and behavioral scientists, selective trial presentation, obtaining of immediate and delayed assessments from persons to whom presentations are made, improvement of orientation materials on the basis of assessments, and final technical reporting of the study. (TC)

EP 001 044 52 $7,808 Kennedy
THE DEVELOPMENT AND PILOT OPERATION OF A SYSTEM TO RECLASSIFY OLDER BOOKS AND PROCESS NEW BOOKS UNDER THE LIBRARY OF CONGRESS CLASSIFICATION SYSTEM FOR A PUBLIC LIBRARY CURRENTLY EMPLOYING THE DEWEY DECIMAL CLASSIFICATION.
Investigator - Sherman, Stuart C.
Providence Public Library, Rhode Island
Bureau No. - BR-7-8381 Proposal date - 03-15-67
Library and Information Sciences Research Branch, DITD
Rhode Island Congressional District No. 2
Grant OEG-1-7-078381-4544
FY67 - $7,808. 06-30-67.06-30-68
Descriptors - *CATALOGING, *DATA PROCESSING, *DOCUMENTATION, *LIBRARY PROGRAMS, *PILOT PROJECTS, DEWEY DECIMAL CLASSIFICATION SYSTEM, INFORMATION SYSTEMS, LIBRARY OF CONGRESS CLASSIFICATION SYSTEM, PROVIDENCE, SURVEYS
Start date - 06-30-67 End date - 06-30-68

This proposal is designed to uncover the problems a public library might encounter in reclassifying its collection from the Dewey Decimal System to the Library of Congress System, to note problems related to processing new books according to the new system, to apply data processing techniques to the task, to establish procedures for reclassification, and to provide an accurate cost estimate for the conversion and processing. A survey of the existing classification situation will be undertaken, and a pilot processing test involving 1,000 cataloged and classified titles along with 500 new titles will be implemented. (GD)

EP 010 005 48 $14,492 Hatch
SUB-REGIONAL SPEECH VARIATIONS IN VOCABULARY, GRAMMAR, AND PRONUNCIATION.
Investigator - Wood, Gordon R.
Southern Illinois University, Carbondale
Bureau No. - BR-5-0909 Proposal date - 10-15-65
Basic Studies Branch, DHER
Illinois Congressional District No. 21
Contract OEC-3-6-050909-0972
FY66 - $14,492. 05-03-66.09-30-67
Descriptors - *COMPUTER PROGRAMS, *GRAMMAR, *PRONUNCIATION, *SPEECH HABITS, *VOCABULARY, CARBONDALE, COMPARATIVE ANALYSIS, DATA PROCESSING, ENGLISH, ILLINOIS, LANGUAGE PATTERNS, LINGUISTICS, ORAL ENGLISH, PHONETICS, REGIONAL PROGRAMS
Start date - 05-03-66 End date - 09-30-67

A computer analysis will be made of the structures of vocabulary, syntax, and pronunciation in current American English. Such an analysis involves identifying the various structural patterns, relating them to known bodies as evidence about American Spoken English, and interpreting the results in terms of continuity and change. As the evidence permits, interpretations will also be made of the apparent influences of age, sex, and education on these matters. Typescripts will be prepared and coded from work copies of master tapes. Two computer runs, pilot and production, will be made involving card punching, machine processing, and printouts. These printouts will be made up of the following elements--(1) vocabulary, (2) grammar and syntax, (3) phonetic-phonemic materials, and (4) summaries of two or three of the first three elements. (JH)

EP 010 077 24 $34,520 Adrian
CONFERENCE AND CURRICULAR AND INSTRUCTIONAL INNOVATIONS IN STATE COLLEGES AND UNIVERSITIES.
Investigator - Hawkins, Earle T.
Towson State College, Baltimore, Maryland
Bureau No. - BR-6-2502 Proposal date - 03-11-66
Instructional Materials and Practices Branch, DHER
Maryland Congressional District No. 2
Contract OEC-2-6-062502-0958
FY66 - $34,520. 05-02-66.01-31-67
Descriptors - *CONFERENCES, *CURRICULUM ENRICHMENT, *CURRICULUM RESEARCH, *INSTRUCTIONAL IMPROVEMENT, *INSTRUCTIONAL INNOVATION, BALTIMORE, MARYLAND
Start date - 05-02-66 End date - 01-31-67

The objectives of the Conference on Curricular and Instructional Innovations are--(1) dissemination of recent curricular and instructional improvements, (2) generation of novel solutions to curricular and instructional problems, (3) channeling of these innovations into specific research propositions, and (4) dissemination of fresh approaches. The Conference will involve approximately 60 participants from an estimated 50 evolving state colleges and universities for the equivalent of 3 full days. (GD)

EP 010 126 08 $153,960 Otte
CURRICULAR IMPLICATIONS OF AUTOMATED DATA PROCESSING FOR EDUCATIONAL INSTITUTIONS.
Investigator - Bangs, F. Kendrick
Colorado University, Boulder, School of Business
Bureau No. - BR-5-0144 Proposal date - 05-23-65
Instructional Materials and Practices Branch, DCVR
Colorado Congressional District No. 2
Contract OEC-6-85-030
FY66 - $153,960. 01-01-66.03-31-68
Descriptors - *AUTOMATION, *CURRICULUM ENRICHMENT, *DATA PROCESSING, *EDUCATIONAL PLANNING, *VOCATIONAL SCHOOLS, BOULDER, COLORADO, COUNSELING SERVICES, INDUSTRY, STATISTICAL SURVEYS
Start date - 01-01-66 End date - 03-31-68

The main purpose is to provide guidance for schools in evaluating existing programs and for establishing new programs in integrated data processing. Information of potential value will be compiled for modification of existing and establishment of flexible, data processing curriculums in office occupation-oriented educational programs offering less than high school degrees. This information will also be of value to counselors in providing students with occupational information in the data processing field. A sample survey design utilizing interviews and questionnaires is planned. Questionnaires administered by interviewers will gather factual data about programs being offered in schools today and about employees' backgrounds and data processing in office work in industry. Implications for curriculum construction will be derived from a scrutiny of the course offering of public secondary and post-secondary schools, vocational-technical schools, and public junior colleges which offer data processing courses (for less than a high school degree). These offerings will then be viewed in relation to the requirements of data processing departments of schools and the opinions expressed by personnel regarding data processing employers. (JH)

EP 010 143 08 $179,625 Otte
USE OF COMPUTER TECHNOLOGY IN VOCATIONAL COUNSELING.
Investigator - Cogswell, John F.
System Development Corporation, Santa Monica, California
Bureau No. BR-5-0141 Proposal date - 05-29-65
Instructional Materials and Practices Branch, DCVR
California Congressional District No. 28
Contract OEC-6-85-076
FY66 - $179,625. 12-03-65.08-31-67

8

Descriptors - *GUIDANCE SERVICES, *INFORMATION PROCESSING, *INFORMATION RETRIEVAL, *VOCATIONAL COUNSELING, *VOCATIONAL EDUCATION, CALIFORNIA, COMPUTER PROGRAMS, SANTA MONICA, STUDENT PROBLEMS, STUDENT RECORDS
Start date - 12-03-65 End date - 08-31-67

The purpose is to study the application of modern information processing technology in vocational counseling under field conditions. Twelve vocational education installations, two state employment agencies, and one private and one municipal vocational guidance operation will be surveyed. A vocational education field site will be selected and the counseling procedures will be analyzed in detail. A system will be developed by a planning team consisting of the counselor at the field site, the researchers, and the consultants. (JL)

EP 010 157 08 $98,800 Teske
EXPERIMENTAL CURRICULUM FOR ELECTRO-MECHANICAL TECHNICIANS IN COMPUTER AND BUSINESS MACHINES TECHNOLOGY.
Investigator - Fellows, Douglas M.
Hartford University, West Hartford, Connecticut
Bureau No. - BR-6-1489 Proposal date - 03-30-66
Instructional Materials and Practices Branch, DCVR
Connecticut Congressional District No. 1
Grant OEG-1-6-061489-2022
FY66 - $76,000. 06-15-66.06-15-67* FY67 - $15,800.
06-16-67.06-15-68* FY68 - $7,000. 06-16-68.10-15-69
Descriptors - *CURRICULUM DEVELOPMENT, *CURRICULUM PLANNING, *ELECTROMECHANICAL AIDS, *TEACHING PROGRAMS, COMPUTERS, CONNECTICUT, DATA PROCESSING, ELECTRONIC EQUIPMENT, ENDICOTT, EXPERIMENTAL CURRICULUM, HARTFORD, NEW YORK
Start date - 06-15-66 End date - 10-15-69

This study proposes to develop course content and methodology, initiate a pilot curriculum, and evaluate the effectiveness of that curriculum in the field of electro-mechanical technology as applied to computers and business machines. An advisory committee will survey existing job titles and required competencies in the business machine industry, and a review of present curriculums in electro-mechanical technology will be made. Two phases of the study already concluded were the development of a curriculum and the provision of basic equipment. The third phase will cover the training of those who will teach the new curriculum. The fourth phase will concern itself with how the curriculum will be taught, followed by the final, evaluative phase. (GD)

EP 010 168 08 $223,387 Otte
THE DEVELOPMENT OF PREVOCATIONAL EDUCATION LITERACY COURSES FOR USE WITH COMPUTER-ASSISTED INSTRUCTION OF DISADVANTAGED YOUTHS AND ADULTS.
Investigator - Smith, T.
Florida State University, Tallahassee
Bureau No. BR-6-1458
Instructional Materials and Practices Branch, DCVR
Florida Congressional District No. 9
Grant OEG-2-6-001458-1540
FY66 - $110,083. 06-01-66.06-01-68

Descriptors - *COMPUTER ASSISTED INSTRUCTION, *COMPUTER BASED LABORATORIES, *COMPUTER ORIENTED PROGRAMS, *COMPUTER PROGRAMS, *ELEMENTARY SCHOOL STUDENTS, ELEMENTARY SCHOOLS, SEQUENTIAL PROGRAMS, SPECIAL EDUCATION, SPECIAL PROGRAMS, TALLAHASSEE

Start date - 06-01-66 End date - 06-01-68

The objectives are to prepare and empirically evaluate programed materials for computer-assisted instruction in reading and numerical skills needed prior to vocational instruction. A literacy training program of reading, writing, and numerical skills appropriate to grade levels two through seven will be developed using vocationally oriented materials. Each segment will be tested in trial sessions with selected functionally illiterate university employees. The final evaluation will involve a comparison of achievement between an experimental group receiving computer-assisted instruction and a control group taught by a classroom teacher using traditional methods. Outside consultants will also be asked to evaluate the program. Student evaluations of the content acceptability will be gathered using questionnaires and/or interviews. (GC)

EP 010 182 24 $52,088 Johnson

USE OF A DATA STORAGE AND RETRIEVAL SYSTEM TO TEACH ELEMENTARY SCHOOL CHILDREN CONCEPTS AND MODES OF INQUIRY IN THE SOCIAL SCIENCES.

Investigator - Joyce, Bruce R.
Columbia University, New York, Teachers College
Bureau No. BR-6-1369 Proposal date - 08-15-65
Instructional Materials and Practices Branch, DESR
New York Congressional District No. 20
Contract OEC-1-6-061369-0684
FY66 - $52,088. 06-01-66.06-30-68

Descriptors - *CONCEPT FORMATION, *EDUCATIONAL RESEARCH, *ELEMENTARY SCHOOL STUDENTS, *PRIMARY GRADES, *PROBLEM SOLVING, *SOCIAL SCIENCES, *TEACHING TECHNIQUES, PURCHASE, THOUGHT PROCESSES

Start date - 06-01-66 End date - 06-30-68

A prototype of a social science data storage and retrieval system (STAR) will be developed to study social science problem-solving strategies. The system will be suitable for use by primary grade children. Problems to be solved will be derived from subject matter dealing with the Cochiti Indian Pueblo of New Mexico. The major task of the project will be to select visuals supported with written passages, legends, and glossaries for use by the children. Procedures will be developed for teaching 20 children to use the STAR system. Children will be questioned and their responses will be recorded or observed. Observers will be trained to ensure consistent observations. Data collected will be analyzed to compare the effects of age, intelligence, social class, prior social studies instruction, and reading achievement. The data will also be analyzed to determine relationships among problem-solving strategies used and the categories of the system to help children discover social science relationships will proceed after appropriate evaluation. (WN)

EP 010 196 08 $141,108 High
A STUDY OF THE EFFECTIVENESS OF A MILITARY-TYPE COMPUTER-BASED INSTRUCTIONAL SYSTEM WHEN USED IN CIVILIAN HIGH SCHOOL COURSES IN ELECTRONICS AND AUTO MECHANICS.
Investigator - Rozran, Gilbert B.
Systems Operation Support, Inc., King of Prussia, Pennsylvania
Bureau No. - BR-5-1332 Proposal date - 02-25-65
Educational Resources Development Branch, DAVR
No. 13, Pennsylvania
Grant OEG-1-6-000242-0618
FY66 - $141,108. 04-01-66.03-31-67
Descriptors - PROGRAMED INSTRUCTION, *RESEARCH, METHODS RESEARCH, MEDIA RESEARCH, *VOCATIONAL EDUCATION, *COMPUTER-ORIENTED PROGRAMS, *INDUSTRIAL ARTS, AUTO MECHANICS, ELECTRONICS, PENNSYLVANIA, SNAP, SMART, KING OF PRUSSIA
Start date - 04-01-66 End date - 03-31-67

Results attributable to computer-based programed instruction will be compared with results of currently planned electronics and auto mechanics instruction. SNAP, a programing technique based on cue-response analysis, will be used. The programs will be presented to selected subjects with an IQ range 130-78 with the Smart Trainer, designed for military use. Selected students will be grouped in IQ levels from 100 to 130, and from 78 to 112. Basic course content will be identical for both the experimental and control group. Both groups will receive the same comprehensive end-of-course written and performance tests. Tests for significant differences will be made for each course. Then a multiple-regression analysis of student scores will be made on attitude, interest, and personality tests against final test scores. (WN)

EP 010 206 08 $14,440 Hurt
A STUDY OF THE EFFECTIVENESS OF FEDERALLY SUPPORTED BUSINESS DATA PROCESSING SUMMER INSTITUTES
Investigator - Wall, Lewis E.
Colorado State University, Ft. Collins, College of Business
Bureau No. - BR-6-2437 Proposal date - 66
Educational Resources and Development Branch, DAVR
Colorado Congressional District No. 4
Grant OEG-4-6-062437-2230
FY66 - $14,400. 06-20-66.08-31-67
Descriptors - *DATA PROCESSING, INSTITUTE-TYPE COURSES, *SUMMER PROGRAMS, *TEACHER EDUCATION, COMPUTERS, *POSTGRADUATE EDUCATION, FORT COLLINS, COLORADO
Start date - 06-20-66 End date - 08-31-67

The objective of the institutes was to develop a pool of teachers for teaching specialized courses in a 2-year preparatory curriculum in business electronic data processing. These teachers would help alleviate a serious shortage that has developed in this subject. A questionnaire will be sent to 30 post-high schools selected at random from the population of such schools who offer federally reimbursed 2-year business data processing courses. The questionnaire will include items designed to determine what the present program and staff characteristics are and items designed to determine anticipated program and staffing needs. Appropriate procedures will be used to obtain a complete return. (JL)

EP 010 220 24 $328,300 Grove
COMPLETION OF COLLECTING AND PREPARATION FOR EDITING A DICTIONARY OF AMERICAN REGIONAL ENGLISH.
Investigator - Cassidy, Frederic
Wisconsin University, Madison
Bureau No. - BR-5-1313 Proposal date - 08-15-64
Wisconsin Congressional District No. 2
Contract OEC-6-10-010
FY66 - $74,400. 07-01-65.06-30-66* FY67 - $74,400.
07-01-66.06-30-67* FY68 - $179,500. 07-01-67.08-31-68
Descriptors - *DATA PROCESSING, *DICTIONARIES, *ENGLISH, *TEXTBOOK PREPARATION, *TEXTBOOK PUBLICATIONS, MADISON
Start date - 07-01-65 End date - 08-31-68

The objective of this project is to complete the collection of language data necessary to the production of a full-scale dictionary of American Regional English and to put the entire body of material into a form which will make for effective and economical editing. Existing conventional files will be converted into a modern data processing form. (LF)

EP 010 224 24 $9,000 Adrian
DEVELOPMENT OF A MATHEMATICS CURRICULUM FOR UNDERGRADUATE BUSINESS STUDENTS.
Investigator - George, Edward Y.
Bentley College of Accounting and Finance, Boston
Bureau No. - BR-5-8455 Proposal date - 04-65
Instructional Materials and Practices Branch, DHER
Massachusetts Congressional District No. 9
Contract OEC-1-7-058455-2079
FY67 - $3,400. 02-01-67.01-31-68* FY68 - $5,600.
02-01-68.08-31-69
Descriptors - *COLLEGE STUDENTS, *COMPUTERS, *INSTRUCTIONAL IMPROVEMENT, *INSTRUCTIONAL INNOVATION, *MANAGEMENT, *MATHEMATICS CURRICULUM, BOSTON, MASSACHUSETTS, STUDENTS
Start date - 02-01-67 End date - 08-31-69

A pilot project will be undertaken which will attempt to--(1) develop a modern curriculum in mathematics for undergraduate business students, and (2) explore whether a broader and deeper mathematics curriculum is needed to help business students develop their abilities in coping with management and computer applications. From a group of freshmen business students, three groups will be designated--control group (standard method of math instruction), Experimental A (traditional upgraded method), and Experimental B (modern upgraded method). Group B will be taught modern mathematics with a special emphasis on the discovery method. All groups will attend three consecutive mathematics courses. The groups will be instructed by different instructors, and given tests at specified periods to measure ability, achievement, and management-and-computer understanding. Data will be analyzed for significant differences in mean scores. (JC)

EP 010 275 24 $4,256 Song
ANALYSIS OF TIME-SERIES QUASI-EXPERIMENTS.
Investigator - Glass, Gene V.
Illinois University, Urbana
Bureau No. - BR-6-8329 Proposal date - 11-19-65
Basic Studies Branch, DHER
Illinois Congressional District No. 22
Grant OEG-3-7-008329-2065
FY67 - $4,256. 10-24-66.12-31-67
Descriptors - *COMPUTER PROGRAMS, *MATHEMATICAL MODELS, *RESEARCH TOOLS, *STATISTICAL ANALYSIS, ALGORITHMS, BOX AND TIAO, MATHEMATICS, URBANA
Start date - 10-24-66 End date - 12-31-67

Broadly conceived, the objective of this project will be an investigation of the adequacy of statistical models developed by Box and Tiao for the analysis of time-series quasi-experiments. This investigation will involve the following--(1) the investigation of the Box-Tiao models as to their adequacy as descriptions of time-series experimental data, (2) investigation of the possibility of extension of the models of Box and Tiao to the analysis of multiple-group and dependent-group time-series quasi-experiments, (3) the development of computer programs for statistical analysis based on the models, and (4) the application of the models to the analysis of actual time-series quasi-experiments. Upon completion of this project, appropriate procedures for the analysis of time-series quasi-experiments should be available. Drawing upon consultation with statistics and experimental design experts, the principal investigator will modify and adapt the mathematical statistician's models for analysis of the change of level of a time-series to serve the purpose of analysis of time-series quasi-experiments in education. When suitable means of analysis have been found, programs for electronic computers will be written. The final, and most important step, will be the processing of examples of time-series quasi-experiments taken from the literature of experimental education and psychology. (LP)

EP 010 308 24 $6,800 Boerrigter
COST ANALYSIS OF AUTOMATED SCHEDULING.
Investigator - Chaffee, Leonard M.; Zeller, Robert W.
State University of New York, Albany, Research Foundation
Bureau No. - BR-6-8380 Proposal date - 12-16-65
Organization and Administrative Studies Branch, DESR
New York Congressional District No. 29
Grant OEG-1-6-068380-1299
FY66 - $6,800. 06-01-66.07-31-67
Descriptors - *COMPUTER ORIENTED PROGRAMS, *COMPUTER PROGRAMS, *SCHEDULING, *SCHOOL ADMINISTRATION, *SCHOOL SCHEDULES, ALBANY, CLASS LOAD AND STUDENT SCHEDULING (CLASS), GENERALIZED ACADEMIC SIMULATION PROGRAM (GASP), HIGH SCHOOLS, NEW YORK, SIMULATION
Start date - 06-01-66 End date - 07-31-67

Data will be analyzed which were obtained during the scheduling of two high schools utilizing two computer-based scheduling techniques--the class load and student scheduling (CLASS) technique and the generalized academic simulation program (GASP) technique. In addition to detailed cost analysis, comparisons will be made of such items as procedures, type of personnel required, personnel time involved, and relative effectiveness of the master schedules. Analyses of these data will be made by members of the project staff, participating school personnel, and consultants. A summary of these analyses in the form of guidelines and recommendations will be prepared. (JC)

EP 010 310 24 $236,734 Adrian
RESEARCH AND IMPLEMENTATION OF COLLEGIATE INSTRUCTION OF PHYSICS VIA COMPUTER-ASSISTED INSTRUCTION.
Investigator - Hansen, Duncan; and others
Florida State University, Tallahassee, Institute of Human Learning
Bureau No. - BR-7-0071 Proposal date - 07-15-66
Instructional Materials and Practices Branch, DHER
Florida Congressional District No. 2
Grant OEG-2-7-000071-2024
FY67 - $236,734. 10-15-66.08-14-68
Descriptors - *COLLEGE STUDENTS, *COMPUTER ASSISTED INSTRUCTION, *EDUCATIONAL METHODS, *LECTURE, *PHYSICS INSTRUCTION, COLLEGE INSTRUCTION, COMPARATIVE ANALYSIS, COSTS, COURSES, EVALUATION, HIGHER EDUCATION, QUESTIONNAIRES, TALLAHASSEE
Start date - 10-15-66 End date - 08-14-68

A computer-assisted instruction (CAI) course for introductory college physics will be prepared, modified, and compared with a lecture course. The comparisons will furnish information about--(1) the effectiveness of the presentation modes, (2) specific learning difficulties experienced by students, (3) student reactions to the presentation modes, and (4) relationships between learning and attitude in CAI and among psychological variables reflected in aptitude and personality patterns. Available and planned CAI systems at Florida State University will be used. Evaluation procedures will include new procedures of behavioral engineering, curriculum development, and multivariate analyses of learning. Time logs, taped interviews, questionnaires, and observation scales will be used also. Results will be useful for evaluating CAI as a possible solution in higher education. (WN)

EP 010 336 24 $19,980 Harbeck
DEVELOPMENT OF AN INTERNSHIP AND A COMPUTER-BASED RESEARCH PROGRAM AS AN INTEGRAL PART OF A GRADUATE PROGRAM IN EDUCATIONAL RESEARCH.
Investigator - Moore, J. William
Bucknell University, Lewisburg, Pennsylvania
Bureau No. - BR-6-1861 Proposal date - 05-17-66

Pennsylvania Congressional District No. 17
Grant OEG-1-6-061861-1088
FY66 - $19,980. 05-01-66.08-31-67
Descriptors,- *COMPUTER ORIENTED PROGRAMS, *GRADUATE STUDY, *INDIVIDUAL INSTRUCTION, *RESEARCH SKILLS, *TEACHER INTERNS, EDUCATIONAL RESEARCH, INSTRUCTIONAL TECHNOLOGY, LEARNING PROCESSES, LEWISBURG, TEACHING METHODS
Start date - 05-01-66 End date - 08-31-67

The development of research skills in the teaching-learning process with special emphasis on individualized instruction will be the basic purpose of this graduate training program. Accommodations will be made for the project by expanding the current master's degree program at Bucknell University to include a full semester of internship and by securing the necessary resources to provide training in computer-based technology and to supervise the internship program. During the internship period, a candidate will assume responsibility for directing an approved project in research on the instructional process, either in a public elementary or secondary school or in a college. Program duration will be 4 years. (JH)

EP 010 352 24 $7,586 Neudling
DEVELOPMENT OF A COMPUTER PROGRAM FOR USE IN THE ANALYSIS OF FUTURE LAND, BUILDING, AND STAFF REQUIREMENTS IN INSTITUTIONS OF HIGHER LEARNING.
Investigator - Meier, Robert C.
University of Washington, Seattle
Bureau No. - BR-5-8414 Proposal date - 66
Research Branch, DHER
No. 1, Washington
Contract OEC-4-7-008414-0467
FY67 - $7,586. 10-01-66.09-30-67
Descriptors - COMPUTER PROGRAMS, *COMPUTERS, INFORMATION PROCESSING, *UNIVERSITIES, *COLLEGE BUILDINGS, STAFF UTILIZATION, *LAND USE, COLLEGES, COLLEGE PLANNING, EDUCATIONAL FACILITIES, CLASSROOMS, EDUCATIONAL EQUIPMENT, SEATTLE, WASHINGTON
Start date - 10-01-66 End date - 09-30-67

A computer program will be developed to provide period-by-period estimates of future university requirements for land, buildings, and staff. The program will take projections of variables external to a university which affect the staff and facilities requirements and, through a set of complex relationships, produce information which can be used to evaluate conditions at various prescribed periods of time. This program will provide the opportunity to observe the effects on a university of different projections of such external variables as the character of the student boy, students' objectives, level of research activity and services, and activities provided by the university. It will also provide an opportunity to manipulate endogenous variables in order to see how the manipulations alter requirements. Examples of the latter would include student-faculty ratios and office space standards. After adjustment and review of the program, it is anticipated that it could be used as a useful long-range planning tool. (JC)

EP 010 374 24 $50,247 Boerrigter
A DEMONSTRATION CENTER TO IMPLEMENT AND TEST THE SCHOOL PROPERTY ACCOUNTING SYSTEM PRESENTED IN HANDBOOK III, U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE.
Investigator - Burnham, F. R.
Iowa State Department of Public Instruction, Des Moines
Bureau No. BR-6-2836 Proposal date - 66
Organization and Administrative Studies Branch, DESR
Iowa Congressional District No. 5
Contract OEC-3-7-062836-1538
FY67 - $50,247. 12-01-66.02-29-68
Descriptors - *DATA PROCESSING, *EDUCATIONAL FACILITIES, *EDUCATIONAL FINANCE, *GUIDES, *SCHOOL DISTRICTS, DATA ANALYSIS, DATA COLLECTION, DES MOINES, FACILITIES, IOWA, PROGRAM GUIDES, SCHOOL ACCOUNTING, SCHOOL DISTRICT SPENDING, SCHOOL FUNDS
Start date - 12-01-66 End date - 02-29-68

An attempt will be made to implement and test the use of the particular system of property accounting described in the U. S. Office of Education Publication (1963), "Guide for Implementing Handbook Three, Property Accounting for Local and State School Systems." Electronic data processing equipment will be used as a basic tool in implementation. The study will result in the establishment of guidelines for (1) collecting data necessary for school property accounting, and (2) revising forms to make them of maximum usefulness and efficiency for use with electronic data processing equipment. Special attention will be given to costs of (1) gathering the data, (2) maintaining updating procedures, and (3) using the information to answer questions about school property. Complete records will be made of school property in one district using the accounts presented in "Handbook Three." Emphasis will be upon developing, revising, and perfecting the codes. Attention will also be given to reporting forms, card layouts, and programs whereby property accounting can be implemented and maintained with electronic data processing equipment. (JC)

EP 010 378 24 $9,940 Song
FLOW OF DOCTORATE HOLDERS INTO COLLEGE AND UNIVERSITY STAFFS--A COMPUTERIZED STUDY.
Investigator - Reisman, Arnold
University of Wisconsin, Milwaukee Campus
Bureau No. - BR-6-8133 Proposal date - 66
Research Branch, DHER
No. 5, Wisconsin
Contract OEC-3-7-068133-0257
FY67 - $9,940. 09-01-66.01-31-68
Descriptors - FEEDBACK, *COMPUTER PROGRAMS, *MATHEMATICAL MODELS, *DOCTORAL DEGREES, DEGREES (TITLES), LINEAR PROGRAMING, DIGITAL COMPUTERS, *GRADUATE SURVEYS, EDUCATIONAL RESEARCH, WRIGHT PATTERSON AFB, MIMIC, MILWAUKEE, WISCONSIN
Start date - 09-01-66 End date - 01-31-68

A conceptual, mathematical model will be refined and programed in MIMIC source language for solution (on an IBM 7094 digital computer) for studying the feedback or flow of persons holding doctoral degrees into the faculty staffs of institutions of higher education. A previously developed model will be used. Specifically, establishing and validating the model's "Lead-Lag Relations" sector will be accomplished. This sector of the model relates the rates of production and/or attrition of various levels of degree holders to the rates of production, in previous years, of lower level degrees. Various postulates will be made and tested against readily available historical data. A computer program capable of processing over 50 nonlinear differential equations will be used to program the model for a solution on the computer. The results of the project will provide a computer simulation of the subject flow process which can be used by decision makers to pretest the dynamic, nonlinear, and long-range effects of various programs and/or policies. (HB)

EP 010 389 40 $9,600 Olshin
A PLANNING PROJECT TO STUDY THE FEASIBILITY OF COMPUTER PRODUCTION OF BRAILLE MATERIALS FOR PUBLIC SCHOOL BLIND CHILDREN.
Investigator - Nelson, Calvin C.
University of Southern California, Los Angeles
Bureau No. BR-6-8925 Proposal date - 06-01-66
Handicapped Children and Youth Branch, DESR
No. 28, California
Grant OEG-4-7-008925-0500
FY67 - $9,600. 11-04-66.07-31-67
Descriptors - BLIND, BLIND CHILDREN, *BRAILLE, PUBLIC SCHOOLS, *INSTRUCTIONAL MATERIALS, READING INSTRUCTION, *COMPUTER PROGRAMS, COMPUTER ORIENTED PROGRAMS, LOS ANGELES, CALIFORNIA, GRADE TWO BRAILLE TRANSLATING PROGRAM
Start date - 11-04-66 End date - 07-31-67

The objectives of this exploratory project will be threefold--(1) to examine the need for various contracted forms of Braille in public schools, (2) to determine the manner in which computerized Braille may be most readily made available to blind school children, and (3) to do exploratory work for developing a grade two Braille translating program for the Honeywell 222 High-Speed Braille Pointer. Procedural activities will consist of the following--(1) the development of a model program, with preliminary testing for a grade two Braille translator system, (2) the determination of need for Braille materials, and (3) discussions with public school personnel, university personnel, and volunteer transcriber groups relative to their respective roles in making computerized Braille materials available to blind school children. (HB)

EP 010 467 24 $59,086 Boerrigter
APPLICATION OF ELECTRONIC COMPUTER TECHNIQUES TO RACIAL INTEGRATION IN SCHOOL SYSTEMS.
Investigator - Barton, Allen H.
Columbia University, New York
Bureau No. - BR-6-2271 Proposal date - 05-27-66
Organization and Administrative Studies Branch, DESR
New York Congressional District No. 20
Contract OEC-1-7-062271-0231
FY67 - $59,086. 09-01-66.10-31-67
Descriptors - *COMPUTER PROGRAMS, *DATA PROCESSING, *PROGRAMING, *RACIALLY BALANCED SCHOOLS, *SCHOOL INTEGRATION, CENSUS FIGURES, DATA COLLECTION, ELEMENTARY EDUCATION, MATHEMATICAL APPLICATIONS, NEW YORK, NEW YORK CITY, PROGRAM PLANNING.
Start date - 09-01-66 End date - 10-31-67

A computerized program is planned to assign students to racially imbalanced schools. The logistical input of the "Assignment-Generator" will include (1) data on pupil distribution by race, (2) location and capacity of schools, (3) transportation available, and (4) racial composition desired. These data will be compiled and tested with 1960 statistics from the Bureau of the Census. Operating instructions will be prepared and documented for use by the school administrators. (RS)

EP 010 478 24 $7,128 Song
AN INVESTIGATION OF NONINDEPENDENCE OF COMPONENTS OF SCORES ON MULTIPLE CHOICE TESTS.
Investigator - Zimmerman, Donald W.
East Carolina College, Greenville, N. C.
Bureau No. - BR-6-8209 Proposal date - 10-10-65
Research Branch, DHER
No. 1, North Carolina
Contract OEC-2-7-068209-0389
FY67 - $7,128. 09-30-66.09-29-67
Descriptors - ESTS, *COMPUTER PROGRAMS, *COMPUTER ORIENTED PROGRAMS, *TESTING PROGRAMS, TESTING PROBLEMS, *TEST VALIDITY, *TEST RESULTS, GREENVILLE, NORTH CAROLINA
Start date - 09-30-66 End date - 09-29-67

The negative correlation between true scores and error scores in multiple choice tests introduced by chance success due to guessing will be investigated. The study, a continuation of research previously accomplished, which has been reported in journals or is in preparation for publication, is designed to develop equations for the case of nonindependence of the components of test scores and to check the theoretical results by a computer simulation method. The computer program will begin with prepared distributions of large numbers of assumed true scores, generate error scores which are negatively correlated with the true scores, and add these to the true scores to give observed scores. Product-moment correlations will be obtained between different columns of observed scores as an estimate of test reliability. All theoretical results will be checked by data from the computer program. (LP)

EP 010 509 08 $19,926 Otte

INSERVICE TRAINING IN COMPUTER ASSISTED INSTRUCTION FOR VOCATIONAL TEACHERS.

Investigator - McGregor, George
Providence College, Rhode Island
Bureau No. - BR-7-0175 Proposal date - 08-12-66
Human Resources Development Branch, DAVR
No. 2, Rhode Island
Grant OEG-1-7-070175-2642
FY67 - $19,926. 12-28-66.06-30-67
Descriptors - *COMPUTER ASSISTED INSTRUCTION, *INSERVICE TEACHER EDUCATION, *VOCATIONAL EDUCATION, FOLLOWUP STUDIES, COURSE ORGANIZATION, *PROGRAMING, *PROGRAM PLANNING, PROVIDENCE, RHODE ISLAND
Start date - 12-28-66 End date - 06-30-67

Inservice training of high school vocational teachers in computer-assisted instruction will be continued. The 20 teachers in the program have been provided with basic training, and course writing techniques for converting individual lessons into proper format. They have written lessons and have begun to plan the content of a semester course in vocational training. This followon will provide training in writing individual lessons in a specific subject. Testing these lessons with a pilot group of students is also planned. (GC)

EP 010 530 24 $25,545 Figler

AUTOMATION FOR PREPARATION OF SYLLABI AND BIBLIOGRAPHIES FOR COLLEGE INSTRUCTION.

Investigator - Gull, Cloyd D.
Indiana University Foundation, Bloomington
Bureau No. - BR-6-1532 Proposal date - 66
Instructional Materials and Practices Branch, DHER
Indiana Congressional District No. 7
Contract OEC-3-7-001532-0495
FY67 - $25,545. 10-05-66.05-31-69
Descriptors - *BIBLIOGRAPHIES, *BOOKLISTS, *COMPUTER PROGRAMS, *CURRICULUM GUIDES, *LIBRARY SCIENCE, *PROGRAM PLANNING, BLOOMINGTON, COMPUTERS, COURSE ORGANIZATION, INDEXES (LOCATERS), LIBRARY INSTRUCTION, LIBRARY PROGRAMS, PROGRAMING
Start date - 10-05-66 End date - 05-31-69

An automated system will be devised to include course outlines, corresponding bibliographies, and reading lists for library science instruction. Updating, rearrangement, cross referencing, and printing will be accomplished by a computer. The printed course outlines and lists will serve instructors, students, and reserve collection librarians in their work. The steps necessary to accomplish this work will be to--(1) establish faculty and student requirements for outlines, entries, and format, (2) prepare a flowchart of actions required, (3) write the computer program from the flowchart, (4) prepare rules for keypunching, (5) keypunch and verify the outlines and entries, (6) print sets of outlines and entries, (7) assess their usefulness to faculty, students, and reserve librarians, and (8) devise new uses for course outlines and bibliographies. (GC)

EP 010 536 48 $23,303 Higgins

THE CONSTRUCTION OF A COMPUTER PROGRAM FOR THE CLASSIFICATION OF HEBREW WORD STEMS.

Investigator - Katsh, Abraham I.
New York University, N. Y.
Bureau No. - BR-6-1263 Proposal date - 08-27-65
Research Branch, DHER
No. 17, New York
Contract OEC-1-7-061263-1656
FY67 - $23,303. 01-01-67.12-31-67

Descriptors -*HEBREW, COMPUTERS, *COMPUTER PROGRAMS, *ALGORITHMS, INSTRUCTIONAL INNOVATION, *LANGUAGE INSTRUCTION, INDEXING, INDEXES (LOCATORS), CONCORDANCE, NEW YORK CITY, NEW YORK

Start date - 01-01-67 End date - 12-31-67

An algorithm for mechanical recognition of Hebrew roots by an electronic computer will be devised and used for library cataloging and for the creation of indexes and concordance of texts in the Hebrew language. In addition, an examination is planned of the theory of the algorithm in terms of a new teaching method for the Hebrew language. The investigation will begin by a thorough study of Hebrew linguistic structure to establish rules for distinguishing root consonants from prefix and suffix consonants. The algorithm will be programed to encompass the rules uncovered in this study, and the workability of these rules will be tested in small runs on short selections from literature of all ages. (GC)

EP 010 565 24 $57,989 Boerrigter

EDUCATION IN THE SEVENTIES--A STUDY AND DESCRIPTION OF MODEL SCHOOL SYSTEMS OF THE NEXT DECADE, UTILIZING COMPUTER ASSISTED INSTRUCTION.

Investigator - Margolin, Joseph B.
George Washington University, Washington, D. C.
Bureau No. - BR-7-0400 Proposal date - 01-24-67
Research Branch, DESR
Contract OEC-2-7-07-0400-2833
FY67 - $57,989. 02-01-67.09-01-67

Descriptors - *COMPUTER ASSISTED INSTRUCTION, *SEMINARS, MODELS, EDUCATIONAL RESEARCH, *METHODS RESEARCH, SCHOOL PLANNING, INSTRUCTIONAL TECHNOLOGY, TEACHING METHODS, *AUTOMATION, *EDUCATIONAL CHANGE, DISTRICT OF COLUMBIA

Start date - 02-01-67 End date - 09-01-67

A traveling seminar of 16 to 20 educators and scientists will be conducted to review recent developments in computer-assisted instruction (CAI) and to formulate long-range, educational research plans relevant to CAI. After a site visitation program, during which at least five demonstrations of CAI research and practice will be observed, the seminar participants will develop models of educational systems incorporating CAI and related educational technology. (JH)

EP 010 566 24 $9,867 Harbeck
COUNSELOR TRAINING IN STATISTICAL ANALYSIS VIA ELECTRONIC PROCESSING FOR RESEARCH ON LOCAL AND REGIONAL STUDENT DATA.
Investigator - Long, Thomas
Altoona Area School District, Pennsylvania
Bureau No. - BR-7-8239 Proposal date - 66
Research Training Branch, DHER
Pennsylvania Congressional District No. 12
Grant OEG-1-7-078239-2919
FY67 - $9,867. 05-14-67.09-25-67
Descriptors - *COMPUTERS, *COUNSELORS, *INSTITUTE TYPE COURSES, *PROGRAMING, *STATISTICAL ANALYSIS, ALTOONA, PENNSYLVANIA, RESEARCH METHODOLOGY, STATISTICAL DATA
Start date - 05-14-67 End date - 09-25-67

A research institute designed to train school counselors in programing, data processing, and computer-use skills for statistical analysis of local and regional student data is planned. In the 2-week period, 25 participants will be trained in (1) data processing IBM card characteristics, (2) the use of the keypunch, sorter, collator, alphabetic interpreter, and card reproducer, (3) FORTRAN programing techniques for writing statistical formulary programs, (4) statistical concepts of central tendency correlation, standard deviation, chi-square, and test-of-significance and relate these procedures to electronic analysis of available student data, and (5) the operation of teletype remote stations. This institute should help school counselors to better collect, analyze, and disseminate school and student-related data, and enable them to engage in cooperative analysis procedures with other schools in their area. (GC)

EP 010 586 24 $9,000 Brittain
A STUDY OF THE EFFECTS OF COMPUTERS ON THE OCCUPATIONAL ADJUSTMENT OF A PROFESSIONAL GROUP.
Investigator - Daniels, Morris J.
San Diego State College, California
Bureau No. - BR-6-8758 Proposal date - 04-15-66
Basic Studies Branch, DCVR
California Congressional District No. 36
Grant OEG-4-7-068758-2978
FY67 - $9,000. 06-01-67.11-30-68
Descriptors - *COMPUTERS, *JOB ANALYSIS, *MOBILITY, *TRANSFER OF TRAINING, *WORK ATTITUDES, BEHAVIOR, CALIFORNIA, CONFLICT, CONSULTANTS, HABIT FORMATION, OPINIONS, RESENTMENT, SAN DIEGO
Start date - 06-01-67 End date - 11-30-68

Problems resulting from the computer-created changing role of the accountant will be studied. The need for accountants to know something about computers and the professional pressures on the accountant to provide management services as a counselor and adviser to business raise three questions to be studied--(1) what are the sources of resistance to the role change, (2) what nontechnical effects result from the technical change (such as effects on the profession's ethical code), and (3) what education programs have been developed to meet this transition. Comparisons will be made among CPA firms in Los Angeles and San Francisco at three levels of transition, ranging from a complete lack of preparation for the changing role to a fairly complete assimilation of it. Education programs in progress will also be observed. Results of these investigations will be studied, on a theoretical level, to learn how individuals adjust to critical turning points as a particular form of adult socialization. (AL)

EP 010 641 24 $9,864 Murnin
DEVELOPMENT AND TESTING OF A SYSTEMS MODEL OF THE CLASSROOM RELEVANT TO CLASSROOM TEACHING AND COMPUTER-ASSISTED INSTRUCTION.
Investigator - Hough, Robbin R.
Michigan State University, Oakland University, Rochester
Bureau No. - BR-7-E-063 Proposal date - 12-05-66
Regional Research, Office Associate Commissioner
Michigan Congressional District No. 18
Grant OEG-3-7-070063-3138
FY67 - $9,864. 05-01-67.12-31-67
Descriptors - INFORMATION RETRIEVAL, *COMPUTER ASSISTED INSTRUCTION, *TEACHING TECHNIQUES, INSTRUCTIONAL AIDS, *MODELS, LEARNING PROCESSES, *EDUCATIONAL RESEARCH, *CLASSROOM TECHNIQUES, SYSTEMS DEVELOPMENT, ROCHESTER, MICHIGAN
Start date - 05-01-67 End date - 12-31-67

The focus of this project will be on elaboration of a general instructional model of the classroom learning process. The model's purpose will be to provide a useful framework for both applied and theoretical research on the subject of classroom or computer-assisted instruction. The instructional nature of the model will emphasize a tutorial approach, rather than programed learning or drill-exercise. During the project period, plans are to complete the development of the experimental model and to begin the design of preliminary methods for evaluating the experiences of individuals who might use it. (JH)

EP 010 663 24 $3,700 Morrow
INVENTORY SYSTEMS LABORATORY.
Investigator - Naddor, Eliezer
Johns Hopkins University, Baltimore, Maryland
Bureau No. - BR-7-C-015 Proposal date - 08-09-66
Regional Research, Office Associate Commissioner
Maryland Congressional District No. 4
Contract OEC-2-7-070015-3111
FY67 - $3,700. 03-06-67.12-05-67
Descriptors - *COMPUTER BASED LABORATORIES, *COMPUTER ORIENTED PROGRAMS, *COMPUTER ASSISTED INSTRUCTION, *BUSINESS EDUCATION, *AUTOINSTRUCTIONAL AIDS, *SYSTEMS APPROACH, EXPERIMENTAL TEACHING, SIMULATION, PROGRAM EVALUATION, PROGRAM COSTS, MODELS, OPERATIONS RESEARCH, BALTIMORE, MARYLAND
Start date - 03-06-67 End date - 12-05-67

A shared computer laboratory will be set up for the study of business inventory systems based on the existing college business curriculum. The laboratory will be used and evaluated as a teaching device in such courses as inventory systems, operations research, statistical methods, computer art and science, and measurement and experimentation. The shared computer will be used to simulate real situations, evaluate the effect of decisions, and compute costs. Manuals will be prepared for the use of students and instructors. It is hoped that the laboratory will become a permanent teaching aid and that the method developed will be readily extendible for use in other courses. (GD)

EP 010 665　　24　　$129,050　　Otte
A FEASIBILITY STUDY OF A CENTRAL COMPUTER FACILITY FOR AN EDUCATIONAL SYSTEM.
Investigator - Lewis, D. G.
General Learning Corporation, Washington, D. C.
Bureau No. - BR-7-9000　　Proposal date - 02-20-67
Instructional Materials and Practices Branch, DCVR
District of Columbia
Contract OEC-1-7-079000-3525
FY67 - $129,050. 04-20-67.09-07-67
Descriptors - *COMPUTER ORIENTED PROGRAMS, *EDUCATIONAL FACILITIES, *FEASIBILITY STUDIES, *SYSTEMS ANALYSIS, *SYSTEMS APPROACH, DESIGN, DISTRICT OF COLUMBIA, EDUCATIONAL RESEARCH, EVALUATION TECHNIQUES, OPERATIONS RESEARCH, PROGRAM COSTS, PROGRAM EVALUATION, TASK PERFORMANCE
Start date - 04-20-67　　End date - 09-07-67

Three major tasks will be performed in this feasibility study of a central computer facility for a hypothetical educational community of 50 schools housing 100,000 students. The first task will be a functional analysis, the end product of which will be a specification of the performance requirements of the system. The second task will be a design synthesis task wherein alternative designs will be generated and continually refined on the basis of the evaluation of the performance and cost of each. The third task, in support of the second, will be that of developing and applying methods for evaluating the performance of alternative designs and for selecting recommended systems on the basis of cost and performance. Upon completion of these tasks, preliminary design specifications for simulation models will be developed for a time-share system and a multi-programed system. These models should serve as tools for the design and evaluation of systems which are similar in functional performance but different in the number of students and schools served. (GD)

EP 010 672　　08　　$19,762　　Otte
COMPUTER-AIDED DRAFTING AND DESIGN - SUMMER INSTITUTE.
Investigator - Morphonios, Alex G.
Miami-Dade Junior College, Florida
Bureau No. - BR-7-0435　　Proposal date - 67

Instructional Materials and Practices Branch, DCVR
Florida Congressional District No. 11
Grant OEG-2-7-070435-3135
FY67 - $19,762. 04-14-67.08-31-67
Descriptors - *AUTOMATION, *COMPUTER ASSISTED INSTRUCTION, *DRAFTING, *INDUSTRIAL ARTS, *INSTITUTE TYPE COURSES, DESIGN CRAFTS, EDUCATIONAL IMPROVEMENT, FLORIDA, MIAMI, SUMMER PROGRAMS
Start date - 04-14-67 End date - 08-31-67

A summer institute training program in computer-aided drafting and design will be held to provide a basis for the participants to understand and use this recent development in automation. Computer programs which automate drafting, design computing, and control of machine tools will be presented, and laboratory projects will be employed to develop proficiency in equipment use and problem solving. The lectures and demonstrations will be presented by leaders in the field and will be designed to meet the specific needs of the participants. (GD)

EP 010 682 08 $35,000 Hurt
SUMMER INSTITUTE TO TRAIN DATA PROCESSING TEACHERS FOR THE NEW OKLAHOMA STATE-WIDE COMPUTER SCIENCE SYSTEM. PHASE II.
Investigator - Tuttle, Francis
Oklahoma State Board for Vocational Education, Stillwater
Bureau No. - BR-7-0822 Proposal date - 02-13-67
Instructional Materials and Practices Branch, DCVR
Oklahoma Congressional District No. 4
Grant OEG-1-7-070822-3486
FY67 - $35,000. 04-15-67.06-30-68
Descriptors - *COMPUTER ORIENTED PROGRAMS, *DATA PROCESSING, *INSTITUTE TYPE COURSES, *TEACHER EDUCATION, *VOCATIONAL EDUCATION, COLLEGE INSTRUCTION, ELECTRONIC EQUIPMENT, HIGH SCHOOL GRADUATES, OKLAHOMA, OKLAHOMA STATE WIDE COMPUTER SCIENCE SYSTEM, PROGRAMING, SCIENCE INSTRUCTION, SCIENTIFIC METHODOLOGY, STILLWATER, SUMMER PROGRAMS, TRAINING
Start date - 04-15-67 End date - 06-30-68

An 8-week institute to prepare post-high school data communications instructors for teaching a second-year curriculum in the Oklahoma Statewide Computer Science System will be conducted during the summer of 1967. This "Second-Year" Institute Program (Phase II) will be a continuation of an institute held the preceeding summer (Phase I) to teach first-year computer science technology. The present program will offer training for 20 participants in advanced levels of cost accounting and business organization, compiler languages, assembly language programing, executive systems data communications, and systems analysis and design. (These and other topics have been incorporated into the advanced curriculum of the Oklahoma Computer Science System, consisting of technical computer science programs in four vocational-technical schools, three junior colleges, and one technical institute.) (JH)

EP 010 700 56 $7,548 Broderick
A SYSTEMS APPROACH FOR AUTOMATING THE CATALOGING AND DISTRIBUTION OF EDUCATIONAL MOTION PICTURES.
Investigator - Vento, Charles
University of Southern California, Los Angeles
Bureau No. - BR-6-8910 Proposal date - 67
Instructional Materials and Practices Branch, DESR
California Congressional District No. 21
Grant OEG-1-7-068910-3715
FY67 - $7,548. 05-01-67.07-30-68
Descriptors - *AUDIOVISUAL AIDS, *FILMS, *INFORMATION DISSEMINATION, *INFORMATION SYSTEMS, *SYSTEMS ANALYSIS, AUTOMATION, CATALOGING, DATA PROCESSING, INSTRUCTIONAL FILMS, INSTRUCTIONAL TECHNOLOGY, LIBRARY SERVICES, LOS ANGELES, MODELS, OPERATIONS RESEARCH, SYSTEMS DEVELOPMENT
Start date - 05-01-67 End date - 07-30-68

A systems description and systems design will be developed to introduce modern information processing techniques into the cataloging, booking, and distributing of educational motion pictures. In particular, a statement of requirements for the integration of these functions into one system will be developed, and recommendations will be offered for making the system operational. A preliminary study of present systems and their operators will be made, and a comprehensive system description will be prepared. Included in the study will be the formulation of a model design of systematic approach to access and delivery of educative materials for teachers. (GD)

EP 010 744 24 $682,690 Otte
SYSTEMS MANAGEMENT ASSISTANCE TO THE OFFICE OF EDUCATION IN THE DEVELOPMENT OF A NEW COMPREHENSIVE SECONDARY SCHOOL CURRICULUM.
Investigator - Shelly, Edwin F.
Shelly (E. F.) and Company, New York, N. Y.
Bureau No. - BR-7-1037 Proposal date - 04-05-67
Instructional Materials and Practices Branch, DCVR
New York Congressional District No. 17
Contract OEC-1-7-071037-3596
FY67 - $48,809. 05-05-67.11-05-67* FY68 - $372,975.
11-06-67.11-05-68* FY69 - $260,906. 11-06-68.11-05-69
Descriptors - *CURRICULUM DEVELOPMENT, *CURRICULUM RESEARCH, *HIGH SCHOOL CURRICULUM, *SYSTEMS APPROACH, *SYSTEMS DEVELOPMENT, DEVELOPMENTAL PROGRAMS, DISTRICT OF COLUMBIA, EXPERIMENTAL CURRICULUM, NEW YORK CITY, RESEARCH PROJECTS, SECONDARY SCHOOLS, SYSTEMS ANALYSIS
Start date - 05-05-67 End date - 11-05-69

Systems management assistance to the Office of Education will be provided for the development of a new, individualized, secondary school curriculum to provide an education that will be adequate to the needs and ability of the student and relevant to the world in which he will live . The contracting agency will assist in the preparation, organization, and conduct of this curriculum research and development program, and in the coordination of the program while executing specific assigned tasks. The development plan calls for the establishment of a series of experimental school curriculums in a number of communities throughout the United States. Each of the new curriculums will be tested for effectiveness in actual practice. Particular attention will be given to system planning, pilot school coordination, program development and evaluation, cost effectiveness, industrial contracting, schedule monitoring, communications and information dissemination, and program reporting. (AL)

EP 010 745 52 $7,500 Kennedy
A STUDY OF THE COMPUTER ARRANGEABILITY OF COMPLEX TERMS OCCURRING IN A MAJOR TOOL USED IN SUBJECT ANALYSIS.
Investigator - Tauber, Maurice F.; Harris, Jessica L.
Columbia University, New York
Bureau No. - BR-7-8045 Proposal date - 06-24-66
Library and Information Sciences Research Branch, DRTD
New York Congressional District No. 20
Contract OEC-1-7-078045-3545
FY67 - $7,500. 06-01-67.05-31-68
Descriptors - *COMPUTER PROGRAMS, *DATA PROCESSING, TECHNOLOGICAL ADVANCEMENT, *CATALOGS, PROGRAM DEVELOPMENT, *LIBRARY PROGRAMS, LIBRARY SCIENCE, DOCUMENTATION, *INDEXES (LOCATERS), LIBRARY SERVICES, NEW YORK CITY, LIBRARY OF CONGRESS
Start date - 06-01-67 End date - 05-31-68

A set of rules will be written and tested for the mechanical arrangement, filing, and expression of Library of Congress subject headings. Rules will be written, using nonmechanically arrangeable subject headings in a Library of Congress subject heading list, to guide the revision of Library of Congress headings so that they can be mechanically arranged according to the computer filing code previously written by the Project Adviser and the Principal Investigator. The planned changes will eliminate the use of punctuation as a filing element. The rules will be written to make the conversion of old headings to the new format a simple clerical task. To test these rules, both a clerk and the Principal Investigator will do a certain amount of converting, and the results of both efforts will be compared. The rules will be further tested by putting the converted headings in machine readable form and sorting them by computer, according to the program already written and tested for the computer filing code. (GD)

EP 010 754 24 $10,000 Lehman
DEVELOPMENT OF COMPUTERIZED TECHNIQUES IN MUSIC RESEARCH WITH EMPHASIS ON THE THEMATIC INDEX.
Investigator - Lincoln, Harry B.
State University of New York, Albany
Bureau No. - BR-7-8276 Proposal date - 67
Arts and Humanities Division
New York Congressional District No. 29

Grant OEG-1-7-078276-3898
FY67 - $10,000. 05-01-67.04-30-68
Descriptors - *COMPUTER ORIENTED PROGRAMS, *CONFERENCES, *INDEXES (LOCATERS), *MUSIC EDUCATION, *MUSIC THEORY, ALBANY, BINGHAMTON, RESEARCH PROJECTS, RESEARCH TOOLS
Start date - 05-01-67 End date - 04-30-68

A conference for specialists will be held as an initial stage of a larger project to develop computerized techniques in music research with emphasis placed on the indexing of musical themes. Broad criteria and procedures in research will be discussed and established, and work on a more extensive proposal for future support will be prepared. (GD)

EP 010 766 08 $1,567,840 Brittain
AN INFORMATION SYSTEM FOR VOCATIONAL DECISIONS UNDER SECTION 4(c) OF THE VOCATIONAL EDUCATION ACT OF 1963.
Investigator - Tiedeman, David V., and others
Harvard University, Cambridge, Massachusetts
Bureau No. - BR-6-1819 Proposal date - 09-19-65
Basic Studies Branch, DCVR
Massachusetts Congressional District No. 8
Grant OEG-1-6-061819-2240
FY66 - $219,949. 06-30-66.12-31-66* FY67 - $415,000. 01-01-66.12-31-67* FY68 - $553,875. 01-01-68.11-30.68* FY69 - $379,016. 12-01-68.07-31-69
Descriptors - *CAREER CHOICE, *COMPUTERS, *DECISION MAKING, *INTERACTION, *VOCATIONAL EDUCATION, CAMBRIDGE, EDUCATIONAL PROGRAMS, INFORMATION SYSTEMS
Start date - 06-30-66 End date - 07-31-69

The major objective of this project is to improve vocational decision-making through the use of a computer-based training program. The program is so designed that the student can relate knowledge about himself to data about education, training, and work, and can thereby obtain information on which he can base career decisions. The entire program links person, computer, and teacher or counselor in such a way that the student conducts a dialog with the computer, and the counselor assists in interpreting and evaluating the results. The project activities fall into three broad areas--(1) development of a computer-based data system for vocational decision making, (2) development of a training program or course in vocational decision-making, and (3) study and assessment of the system, its users, and its use. (TC)

EP 010 770 52 $292,927 Clyke
AN INFORMATION STORAGE AND RETRIEVAL SYSTEM FOR BIOLOGICAL AND GEOLOGICAL DATA.
Investigator - Squires, Donald F.
Smithsonian Institution, Washington, D. C.
Bureau No. - BR-7-1159 Proposal date - 67
Library and Information Sciences Research Branch, DITD
District of Columbia

Grant OEG-1-7-071159-4425
FY67 - $292,927. 06-21-67.12-21-68
Descriptors - *COMPUTERS, *DATA PROCESSING, *INFORMATION DISSEMINATION, *INFORMATION RETRIEVAL, *MUSEUMS, BIOLOGY, COBOL, DISTRICT OF COLUMBIA, GEOLOGY
Start date - 06-21-67 End date - 12-21-68

The Smithsonian Institution is developing a comprehensive institution information retrieval system to provide information to the scientific community, including students, university faculty members, and research institute scholars. Because collected specimens are the core of biological and geological information, a computerized system of collection management is essential not only to efficiently use museum resources, but also to serve as an interface with conventional libraries and other subject-oriented facilities. The communication between the user and the system is accomplished through COBOL, a common procedural language designed for commercial data processing. The user states his requests in the form of "IF" statements and indicates relationships which will satisfy his request. The user does not concern himself with file structure or input and output commands since these are performed by the system in conjunction with COBOL. The development of the proposed system will permit greater accessibility of fundamental resource materials of specimens and related data to students at all levels, as well as senior scholars. (TC)

EP 010 771 52 $417,490 Kennedy
BIBLIOGRAPHIC AUTOMATION OF LARGE LIBRARY OPERATIONS USING A TIME-SHARING SYSTEM (PROJECT BALLOTS).
Investigator - Veaner, Allen B.
Stanford University, California
Bureau No. - BR-7-1145 Proposal date - 05-67
Library and Information Sciences Research Branch, DITD
California Congressional District No. 10
Grant OEG-1-7-071145-4428
FY67 - $417,490. 06-26-67.12-26-68
Descriptors - *CATALOGING, *COMMUNICATIONS, *COMPUTERS, *INFORMATION PROCESSING, *LIBRARY FACILITIES, INFORMATION RETRIEVAL, PROJECT BALLOTS, STANFORD
Start date - 06-26-67 End date - 12-26-68

A large-scale time-shared computer will be applied to the basic bibliographic management of a large research library to (1) speed up the processing of new acquisitions, (2) lead to an eventual reduction of unit operating costs, (3) reduce clerical waste and inefficiency, and (4) reduce the communication barriers between the library's contents and its community of users. This will be achieved by providing on-line, remote access to a central, computer-maintained bibliographic file for the basic library functions. The IBM 360/67 will be used in time-sharing mode to (1) design and organize bibliographic files compatible with Library of Congress machine-readable records, and with business files matching the system requirements of the purchasing department, registrar, and controller, (2) design, program, test, and operate centralized library technical services based on computer-maintained bibliographic files, (3) conduct traffic and installation studies and install a communications network to provide remote access to and display of the records to the using public and the staff, (4) develop the software needed to operate high capacity, fast visual display consoles, and (5) disseminate the results of its work. (TC)

EP 010 772 52 $141,763 Clyke

AN INFORMATION PROCESSING LABORATORY FOR EDUCATION AND RESEARCH IN LIBRARY SCIENCE.

Investigator - Maron, M. E.
California University, Berkeley
Bureau No. - BR-7-1085 Proposal date - 67
Library and Information Sciences Research Branch, DITD
California Congressional District No. 7
Grant OEG-1-7-071085-4286
FY67 - $141,763. 06-15-67.12-14-68
Descriptors - *COMPUTER ASSISTED INSTRUCTION, *DEMONSTRATIONS (EDUCATIONAL), *INFORMATION PROCESSING, *LIBRARY SCIENCE, *TRAINING LABORATORIES, BERKELEY
Start date - 06-15-67 End date - 12-14-68

An investigation will be made of the problems concerning the design, organization, operation, and evaluation of an information processing laboratory for library science students. The laboratory will be designed to educate and train library science students on the subject of applying information processing techniques to the problems of libraries. Specifically, the laboratory will provide (1) the tools needed for demonstration and use of information processing techniques, (2) the means for determining the use of on-line computer-assisted instructional techniques to teach both information processing and traditional librarianship, and (3) the equipment and facilities needed by advanced students to conduct empirical research as part of their dissertation work. The investigation will proceed in three overlapping phases of study, extending over a period of 18 months--(1) preliminary systems design and specification, (2) acquisition and organization of pilot equipment, data, and related software, and (3) preliminary testing of the functioning of the laboratory during one academic quarter. (TC)

EP 010 830 40 $78,025 Olshin

THE DEVELOPMENT AND PROGRAMMING OF A SIMULATED PURE TONE AUDIOMETER.

Investigator - Siegenthaler, Bruce M.; Mitzel, Harold E.
Pennsylvania State University, University Park
Bureau No. - BR-7-0733 Proposal date - 12-30-66
Division of Research, B.E.H.
Pennsylvania Congressional District No. 23
Grant OEG-2-7-070733-4586
FY67 - $78,025. 06-16-67.06-15-68
Descriptors - *AUDITION (PHYSIOLOGY), *AURAL STIMULI, *AURALLY HANDICAPPED, *COMPUTERS, *SIMULATION, AUDIO EQUIPMENT, AUDIOLINGUAL METHODS, UNIVERSITY PARK
Start date - 06-16-67 End date - 06-15-68

A computer terminal input will be developed to offer audiology students an opportunity for extensive and intensive pure-tone tests under controlled conditions. There will be four phases in the project--(1) developing the audiometer-simulated terminal or console, (2) engineering the interface between the audiometer-simulated terminal and the telephone line to the computer, (3) writing a computer program to simulate real-patient auditory responses, and (4) conducting preliminary trials with audiometric technicians-in-training. A document summarizing the developments of this project will be prepared. This will include (1) schematic diagrams of the simulated audiometer with other pertinent engineering data and (2) a resume of problems and their solutions relative to developing the audiometric test procedure. A set of programed materials will be developed for audiometric test practice. The format will be a deck of punched cards suitable for entering into computer storage. The audiometric course, together with previously developed audiology materials, will be made available to others at the cost of raw materials. (TC)

EP 010 833 52 $75,000 Cylke
STUDY OF THE IMPLICATIONS OF MODERN TECHNOLOGY IN SMALL COLLEGE LIBRARIES.
Investigator - Turner, Edward F., Jr.
Washington and Lee University, Lexington, Virginia
Bureau No. - BR-7-0910 Proposal date - 06-01-67
Library and Information Sciences Research Branch, DITD
Virginia Congressional District No. 7
Grant OEG-1-7-070910-3706
FY67 - $75,000. 06-15-67.12-14-68
Descriptors - *AUTOMATION, *COLLEGE LIBRARIES, *INFORMATION PROCESSING, *LIBRARY PROGRAMS, *LIBRARY SCIENCE, INFORMATION RETRIEVAL, INFORMATION STORAGE, INNOVATION, LEXINGTON, SMALL SCHOOLS
Start date - 06-15-67 End date - 12-14-68

Research and analysis will be conducted to determine the most efficient and economical means of applying technological innovations to the small college or community library. In addition, knowledge of the peculiar organizational problems of libraries will be used to assist in finding ways to apply automation and information handling to library operations. Through the application of modern technology, the library should more easily attain its goal of better and more extensive service to its clientele. The investigator will examine a series of problems in trying to assess the requirements of the modern college library. Some of the problem areas are student needs, faculty needs, information availability, changes in user patterns, and compact storage of materials. These problem areas will be approached from the view of using the latest advances in information handling and educational technology. (TC)

EP 010 840 56 $83,797 Otte
DEVELOPMENT OF A PROGRAMED COURSE FOR GROUP INSTRUCTION OF SECONDARY TEACHERS AND ADMINISTRATORS IN THE TECHNIQUES OF INSTRUCTIONAL TECHNOLOGY.
Investigator - Deterline, William A.
General Programmed Teaching, Palo Alto, California
Bureau No. - BR-7-1071 Proposal date - 67
Instructional Materials and Practices Branch, DCVR

California Congressional District No. 10
Contract OEC-1-7-071071-5064
FY67 - $83,797. 06-27-67.05-15-68
Descriptors - *AUDIOVISUAL AIDS, *INSTRUCTIONAL DESIGN, *INSTRUCTIONAL TECHNOLOGY, *PROGRAMED MATERIALS, *TEACHER EDUCATION, COURSE OBJECTIVES, PALO ALTO, SECONDARY SCHOOL TEACHERS
Start date - 06-27-67 End date - 05-15-68

A programed instruction course for group presentation will be prepared to provide teacher training in the principles and specific techniques of instructional technology, instructional systems, and their application to the design of instructional materials and presentations of various kinds. The course will consist of approximately 30 hours of classroom audiotape-filmstrip presentations plus approximately 20 additional hours of individual-programed practical exercises in instructional design. The course will be designed, materials will be developed, and the course will be validated by a series of tests and revisions of the materials. The finished product will make it possible for large or small groups of teachers, administrators, media specialists, and others involved in instructional design and implementation to develop certain skills and performance capabilities in the analysis and specification of course objectives, design of instruction, measurement of criteria, validation of course instruction, selection of materials, and utilization of an adequate, "closed-loop" implementation system. The instructional technology approach promises to increase the effectiveness and efficiency of all types of instruction. An implementation manual will be prepared, tested, and revised so the course can be implemented and used by a person not experienced in audiovisual presentation. (TC)

EP 010 843 52 $56,301 Kennedy
DESCRIPTIVE CATALOGING. DEVELOPMENT OF THE PRINCIPLES OF CATALOGING, PHASE I.
Investigator - Lubetzky, S.
California University, Los Angeles
Bureau No. - BR-7-1089 Proposal date - 67
Library and Information Sciences Research Branch, DITD
California Congressional District No. 28
Contract OEC-1-7-071089-4284
FY67 - $56,301. 06-15-67.12-14-68
Descriptors - *CATALOGING, *DATA PROCESSING, *INDEXING, *INFORMATION SYSTEMS, *LIBRARY SCIENCE, DOCUMENTATION, LOS ANGELES
Start date - 06-15-67 End date - 12-14-68

An investigation will be made on the fundamental, historical and theoretical aspects of descriptive or bibliographic cataloging, including the purposes to be served, the problems involved, and the principles which should underlie a cohesive, rational, and purposeful cataloging system. The investigation will cover the following topics (as related solely to descriptive cataloging)--(1) historical development of cataloging rules and principles, (2) analysis of aims and objectives of cataloging, (3) design and function of catalog entries, (4) actual entry of documents, (5) description of bibliographic entity, (6) implications of computerization, and (7) organization of catalogs. This project will be followed by a corresponding study of subject cataloging which is to be applied to the product of the descriptive cataloging study. (JH)

EP 010 845 52 $90,000 Cylke
A COMPUTER BASED SYSTEM FOR RESERVE ACTIVITIES IN A UNIVERSITY LIBRARY.
Investigator - Fasana, Paul J.; Logsdon, Richard H.
Columbia University, New York
Bureau No. - BR-7-1129 Proposal date - 06-16-67
Library and Information Sciences Research Branch, DITD
New York Congressional District No. 20
Grant OEG-1-7-071129-5047
FY67 - $90,000. 06-01-67.12-01-68
Descriptors - *BOOKLISTS, *COLLEGE LIBRARIES, *COMPUTER PROGRAMS, *DATA PROCESSING, *LIBRARY PROGRAMS, CLASSROOM MATERIALS, LIBRARY MATERIALS, NEW YORK CITY, TEXTBOOKS
Start date - 06-01-67 End date - 12-01-68

A determination will be made of the feasibility of designing a generalized computer-based system which would perform reserve activities for university libraries and be applicable to reserve environments irrespective of their size or subject orientation. On the immediate user level, such a system would provide to professors and students complete listings of books on reserve for particular courses. An analysis of several reserve systems, varying in volume of work done and subject area covered, will be conducted. The processing functions common to all of the systems studied will be isolated and stated. A generalized system of procedures will be formulated. Computer programs will be written and pilot systems initiated to operationally test the validity of the generalized system design. Initially, the computer system will be off-line. As effort progresses, on-line processing will be incorporated, and a functional comparison of the two processing modes within the system will be done. (JH)

EP 010 849 52 $109,219 Cylke
STUDY OF USER REQUIREMENTS IN IDENTIFYING DESIRED WORKS IN A LARGE LIBRARY.
Investigator - Lipetz, Ben-Ami
Yale University, New Haven, Connecticut
Bureau No. - BR-7-1140 Proposal date - 05-03-67
Library and Information Sciences Research Branch, DITD
Connecticut Congressional District No. 3
Grant OEG-1-7-071140-4427
FY67 - $109,219. 06-15-67.05-31-69
Descriptors - *AUTOMATION, *CATALOGING, *CATALOGS, *COMPUTERS, *LIBRARY SKILLS, LIBRARY STANDARDS, NEW HAVEN
Start date - 06-15-67 End date - 05-31-69

A study will be made of the requirements of library users when seeking to identify desired works within a large collection. The study will be conducted with the characteristics and capabilities of computers in mind. The attempt will be to determine whether there are features of conventional library catalog cards and of conventional cataloging practice which should be altered in a computerized system to achieve better user service or more economical processing. User need will be studied by means of a carefully designed series of interviews conducted with library users as they approach the card catalog of a university library. The interviewers will attempt to elicit the precise categories and specificity of identifying data which users have in mind when initiating a search. Pertinent works identified by users will be examined, as will the catalog cards which describe those works. Attempts will be made to formulate rules of file organization which would assure efficient identification of the pertinent works in a large computerized system. Cataloging requirements will be examined to see whether simplified, possibly automated, procedures would suffice for input to a computerized catalog system, or whether, conversely, more detailed and complex input processing may be desirable. (TC)

EP 010 856 52 $14,991 Cylke
LIBRARY AUTOMATION--A CRITICAL REVIEW.
Investigator - Overmyer, Lavahn
Western Reserve University, Cleveland, Ohio
Bureau No. - BR-7-1268 Proposal date - 67
Library and Information Sciences Research Branch, DITD
Ohio Congressional District No. 22
Grant OEG-1-7-071268-5079
FY67 - $14,991. 06-29-67.02-28-69
Descriptors - *ADMINISTRATOR GUIDES, *AUTOMATION, *BIBLIOGRAPHIES, *LIBRARY FACILITIES, *LIBRARY SCIENCE, CLEVELAND, GUIDELINES, LIBRARY SERVICES, TECHNOLOGICAL ADVANCEMENT
Start date - 06-29-67 End date - 02-28-69

A handbook will be prepared to assist library administrators who are considering the use of automation in their library systems. The handbook will include a critical review of the literature of library automation. To provide materials for both the handbook and the critical review, a 5-month period will be devoted to the collection of data. Information will be gathered from literature and at selected locations, and analyzed to determine (1) what library automation has done to the overall library system in terms of service, efficiency, staff morale, staff assignments, and costs, (2) what the reaction of the user-community served has been, (3) how well user needs have been met, and (4) what the plans of the library are for the future. (AL)

EP 010 890 56 $61,518 Figler
STATE OF THE ART STUDY OF DIAL ACCESS INFORMATION RETRIEVAL.
Investigator - Ofiesh, Gabriel
Catholic University of America, Washington, D. C.
Bureau No. - BR-7-1042 Proposal date - 03-31-67
Instructional Materials and Practices Branch, DHER
District of Columbia
Contract OEC-1-7-071042-5093
FY67 - $61,518. 06-28-67.04-30-68
Descriptors - *AUDIOVISUAL AIDS, *GUIDELINES, *INFORMATION RETRIEVAL, *INSTRUCTIONAL TECHNOLOGY, *VISUAL LEARNING, DISTRICT OF COLUMBIA, EVALUATION
Start date - 06-28-67 End date - 04-30-68

The dial access information systems now in operation, the extent of their use, and their contributions to educational processes will be investigated. The data gathered will be used to develop guidelines for the planning, design, installation, operation, and financing of dial access systems appropriate to various types of educational institutions and uses. Evaluation of the dial access systems will be conducted by (1) establishing a list of educational institutions using dial access equipment for information retrieval, and (2) gathering data by direct contact with the institutions and by questionnaire concerning the type of equipment used, its versatility, acceptance, size of system, and degree of impact on the educational process. The guidelines handbook to be prepared will include performance specifications, equipment specifications, costs, and procedures. (TC)

EP 010 918 56 $48,460 Lehman
DEVELOPMENT AND EVALUATION OF COMPUTER-ASSISTED INSTRUCTION FOR INSTRUMENTAL MUSIC.
Investigator - Deihl, Ned C.
Pennsylvania State University, University Park
Bureau No. - BR-7-0760 Proposal date - 12-30-66
Arts and Humanities Division
Pennsylvania Congressional District No. 23
Contract OEC-1-7-070760-5136
FY67 - $19,066. 06-28-67.06-27-68* FY68 - $22,920.
06-28-68.06-27-69* FY69 - $6,474. 06-28-69.06-27-70
Descriptors - *COMPUTER ASSISTED INSTRUCTION, *INSTRUCTIONAL TECHNOLOGY, *MUSIC EDUCATION, *PROGRAM DEVELOPMENT, *SKILL DEVELOPMENT, AUTOINSTRUCTIONAL AIDS, CONCEPT FORMATION, FEEDBACK, INDIVIDUALIZED PROGRAMS, LEARNING PROCESSES, MUSIC TECHNIQUES, PROGRAM EVALUATION, SEQUENTIAL APPROACH, UNIVERSITY PARK
Start date - 06-28-67 End date - 06-27-70

A computer-assisted technique for instruction in certain instrumental music skills and concepts will be developed. This technique will employ aural models and programing principles to (1) develop an efficient method for individual practice, (2) provide instructors with specialized, sequenced instruction, (3) determine the potential of the technique for certain performance skills and concepts, and (4) provide an exploratory framework for an analysis of musical learning. The present program will be limited to articulation and phrasing in clarinet performance short segments of music will be taped and prerecorded in the program. These models may be used to "prompt" (precede) and "confirm" (follow) the version to be recorded by the student. The direct, immediate aural comparison by the student would serve as feedback. In addition to taping segments and comparing these with models, the student will be asked programed questions incorporating diagnostic and judgment procedures. (GD)

EP 010 925 52 $498,592 Cylke
A STUDY OF THE ORGANIZATION AND SEARCH OF BIBLIOGRAPHIC HOLDINGS RECORDS IN ON-LINE COMPUTER SYSTEMS.
Investigator - Maron, M. E.
California University, Berkeley
Bureau No. - BR-7-1083 Proposal date - 67
Library and Information Sciences Research Branch, DITD
California Congressional District No. 7
Contract OEC-1-7-071083-5068
FY67 - $179,719. 06-15-67.06-30-68* FY68 - $309,873.
06-15-68.06-30-69
Descriptors - *COMPUTER ORIENTED PROGRAMS, *DATA PROCESSING, *INFORMATION SYSTEMS, *LIBRARIES, *LIBRARY FACILITIES, BERKELEY, DATA COLLECTION, INFORMATION RETRIEVAL
Start date - 06-15-67 End date - 06-30-69

This study on computer-based library systems will focus upon the organization and search of large random access files with terminal-controlled interrogation, as they apply to the handling of bibliographic holdings records. A machine-form data base of significant size (200,000) composed of Roman alphabet materials of general usefulness to the research library will be used. The first part of this study will involve the development of the data base using both existing machine-form records and original input. In the second part, organization and search techniques in an on-line system will be developed and implemented. Initial results of the study, reports, machine-form records, programs, and other materials of the preliminary study will be made generally available, and a consultant advisory panel will be established to review the project plans in relation to programs at other institutions. (GD)

EP 010 934 52 $25,077 Cylke
AN EVALUATION OF THE UTILITY AND COST OF COMPUTERIZED LIBRARY CATALOGS.
Investigator - Resnikoff, H. L., Dolby, J. L.
R and D Consultants Company, Los Altos, California
Bureau No. - BR-7-1182 Proposal date - 04-67
Library and Information Sciences Research Branch, DITD
California Congressional District No. 10
Contract OEC-1-7-071182-5013
FY67 - $25,077. 06-30-67.06-29-68

Descriptors - *CATALOGING, *COMPUTER ORIENTED PROGRAMS, *LIBRARIES, *PROGRAM COSTS, FEASIBILITY STUDIES, PROGRAM EVALUATION, *INFORMATION PROCESSING, *DATA COLLECTION, DATA ANALYSIS, CATALOGS, DIRECTORIES, PRINTING, LINGUISTIC PATTERNS, LOS ALTOS
Start date - 06-30-67 End date - 06-29-68

A utility and cost study of computerized library catalogs will be conducted to collect detailed information about cost factors and to determine areas that require more elaborate studies. A computerized catalog has two major advantages--(1) it permits the production of printed catalogs on a periodic basis at cost levels not achievable by other means, and (2) it permits the production of more variations of the standard listings by author, title, and subject than are otherwise possible. At the same time the computerized catalog raises questions, particularly of cost, that will be investigated in this study. Information gathering will be done in two phases--(1) by visits to major library centers that represent various problems and viewpoints on the use of computers in libraries, and (2) by a study of existing printed library and commercial catalogs and directories. In Phase 1 information on special purpose bibliographies will be gathered to determine (1) to what extent computer listings could have been used to produce these special bibliographies, (2) size of potential market for special bibliographies, (3) feasibility of letting production of bibliographies carry part of the costs of a computerized catalog, and (4) what modifications to card catalogs would be needed to simplify generation of catalogs. In Phase 2, the speed of scanning a file by a user, which is connected with costs, will be determined as a function of type size, type face, and page and entry formats. Additional factors to be studied are conversion costs, costs of computer programing and ways of reducing them, and the feasibility of interinstitutional use of computer programs. (AL)

EP 010 937 52 $250,000 Kennedy
ACQUISITION OF KNOWLEDGE IN RELATION TO INFORMATION, STORAGE AND RETRIEVAL.
Investigator - Von Foerster, Heinz; Chien, Robert T.
Illinois University, Urbana
Bureau No. - BR-7-1213 Proposal date - 05-25-67
Illinois Congressional District No. 22
Contract OEC-1-7-071213-4557
FY67 - $250,000. 06-22-67.02-28-69
Descriptors - *COGNITIVE PROCESSES, *COMPUTATIONAL LINGUISTICS, *CONCEPTUAL SCHEMES, *INFORMATION RETRIEVAL, *SYSTEMS DEVELOPMENT, COMPUTERS, INSTRUCTIONAL TECHNOLOGY, LEARNING THEORIES, TECHNICAL ADVANCEMENT, URBANA
Start date - 06-22-67 End date - 02-28-69

An interdisciplinary approach will be used to develop the conceptual and theoretical foundations and organization of computer information storage and retrieval systems that will permit symbolic discourse in the form of natural language between man and machine. Computer software and hardware will be organized and developed to demonstrate the superiority of such systems, called cognitive memory systems, over conventional information storage and retrieval systems which deliver documents upon coded queries. For this study, the concepts of "what information storage and retrieval systems should be" will be based upon considering knowledge to be a set of relations, not necessarily represented in linguistic form, to which appropriate access is obtained by appropriate transformations into the linguistic domain. This approach considers the ultimate aim in information systems to be the use of knowledge through discourse by use of natural language in a man-machine system in which each partner is entitled to pose problems to the other partner who may solve them by recourse to deductive or inductive reasoning. Researchers from the departments of computer sciences, mathematics, linguistics, library science, anthropology, psychology, electrical engineering, biophysics, and the biological computer laboratory will contribute and cooperate in this project on a formal or informal basis. The results of this study will be important as a fundamental re-thinking of the information storage and retrieval problem in terms of operable cognitive memory systems and for the contributions made to subject areas and to teaching methods. (AL)

EP 010 942 56 $82,381 Adrian
A COST STUDY OF EDUCATIONAL MEDIA SYSTEMS AND THEIR EQUIPMENT COMPONENTS.
Investigator - Bilinski, John
General Learning Corporation, Washington, D. C.
Bureau No. - BR-7-9006 Proposal date - 05-31-67
Instructional Materials and Practices Branch, DHER
Contract OEC-1-7-079006-5139
FY67 - $82,381. 06-28-67.02-10-68
Descriptors - *EDUCATIONAL EQUIPMENT, *EDUCATIONAL FINANCE, *INSTRUCTIONAL TECHNOLOGY, *MEDIA RESEARCH, *MODELS, *SYSTEMS ANALYSIS, DISTRICT OF COLUMBIA, EDUCATIONAL SPECIFICATIONS, EDUCATIONAL STRATEGIES, ESTIMATED COSTS, EXPENDITURES, INITIAL EXPENSES, INSTRUCTIONAL INNOVATION, OPERATING EXPENSES, SYSTEMS DEVELOPMENT
Start date - 06-28-67 End date - 02-10-68

A study will be made of the principal cost elements in the procurement, installation, and operation of educational media and technology. The study will include (1) indentification of candidate systems, (2) detail of the physical and operational characteristics of the systems, (3) development of mathematical models describing the relationship between characteristics and costs, (4) collection of cost data, including data provided by operating experience, and analysis of the selected systems, and (5) determination of potential cost savings for the systems studied, including those involving new or advance configurations and technologies. The project team will include system cost analysis, educators, media specialists, equipment engineers, and consultants. The final report will (1) describe the selected systems, indicating their application at local, regional, and national levels, (2) describe the costing model, identifying the assumptions and indicating their implications to a system's costs, (3) provide an analysis of costs in relation to measurement criteria, and (4) recommend potential cost savings that could be realized at various geographic levels of use of the new educational media systems and components. (RS)

EP 011 002 24 $9,998 Murnin

REDUCTION OF ERRORS DUE TO THE POSITION OF ITEMS IN THE ADMINISTRATION OF THE SEMANTIC DIFFERENTIAL QUESTIONNAIRE.

Investigator - Kane, Robert B.
Purdue Research Foundation, Lafayette, Indiana
Bureau No. - BR-7-E-189 Proposal date - 05-16-67
Regional Research, Office Associate Commissioner
Indiana Congressional District No. 2
Contract OEC-0-8-070189-2508
FY68 - $9,998. 02-01-68.08-31-68
Descriptors - *TESTS, *TEST CONSTRUCTION, *TEST RELIABILITY, *EVALUATION, SEMANTICS, *COMPUTER PROGRAMS
Start date - 02-01-68 End date - 08-31-68

Approximately 250 undergraduate students at Purdue University will be randomly assigned to three experimental testing groups to (1) determine the results of controlling three sources of order effects in semantic differential (SD) administrations and (2) aid in developing a practical method of producing a set of SD questionnaires in which item-order effects are minimized by using an electronic computer to generate the questionnaires. Concept order, scale order, and scale polarity are the three order effects which are sources of proximity error in semantic differential administrations. The creation of the computer program will make it possible to determine the results of controlling the sources of order effects in the tests. Comparisons will be made between responses to SD questionnaires produced in the conventional way and computer-generated SD questionnaires in which item orders are varied to control proximity error. Differences in factor structure, factor scores, and response consistencies will be analyzed. In the event that this research indicates that proximity error reduction yields significant differences in the results from SD administration, other experimenters may use the computer program created for this research since it will be written in FORTRAN, a language that is acceptable to almost all computing systems available to educational researchers. (PM)

EP 011 020 48 $104,425 Petrov

APPLICATION OF MATHEMATICAL LEARNING THEORY TO SECOND-LANGUAGE ACQUISITION WITH PARTICULAR REFERENCE TO RUSSIAN.

Investigator - Van Campen, J. A.; Suppes, Patrick
Stanford University, California
Bureau No. - BR-7-1209 Proposal date - 08-16-67
Instructional Materials and Practices Branch, DHER
California Congressional District No. 10
Contract OEC-0-8-001209-1806-014
FY68 - $104,425. 09-01-67.08-31-68
Descriptors - *COMPUTER ASSISTED INSTRUCTION, *LANGUAGE INSTRUCTION, MATERIAL DEVELOPMENT, *MATHEMATICAL APPLICATIONS, MATHEMATICAL LINGUISTICS, MATHEMATICAL MODELS, INSTRUCTIONAL INNOVATION, *RUSSIAN, *SECOND LANGUAGE LEARNING, INDIVIDUAL INSTRUCTION, LEARNING THEORIES
Start date - 09-01-67 End date - 08-31-68

Materials for a computer-based, 1st-year course in Russian, prepared under Contract OEC-6-14-009, will be revised and supplemented in the current project. Special attention will be given to the development of techniques for the individualization of instruction by (1) response-dependent correction routines and (2) test-score-dependent recycling routines. Such skills as pronunciation and handwriting which cannot be tested conveniently online will be handled by supplementary language-laboratory work, the output of which (written sentences and pronunciation tapes) will be analyzed by ordinary non-computer methods. Much of the new research will be based on the performance of as many as 36 college students who will use the computer-based materials and accompanying laboratory drills in their study of 1st-year Russian. The investigators expect that the experimental materials will be suitably revised for inclusion in regular, college-level, introductory course offerings in the Russian language. (JH)

EP 011 035 24 $7,780 Abell

A METHOD FOR EVALUATING STUDENT PROGRESS IN UNDERGRADUATE COMPUTER SCIENCE BY USE OF AUTOMATED PROBLEM SETS.

Investigator - Woodbridge, David D.
Florida Institute of Technology, Melbourne
Bureau No. - BR-7-D-080 Proposal date - 67
Regional Research Program, OAC
Florida Congressional District No. 5
Grant OEG-4-8-070080-0015
FY68 - $7,780. 03-01-68.10-31-68
Descriptors - *COMPUTERS, COMPUTER ORIENTED PROGRAMS, COMPUTER PROGRAMS, *DATA PROCESSING, EVALUATION, *STUDENT EVALUATION, EVALUATION TECHNIQUES, *COLLEGE CURRICULUM, COLLEGE PROGRAMS, INSTRUCTIONAL AIDS, INSTRUCTIONAL TECHNOLOGY, *AUTOINSTRUCTIONAL PROGRAMS, HIGH SCHOOL CURRICULUM, PROBLEM SETS, PROGRAMING PROBLEMS, TEACHING TECHNIQUES
Start date - 03-01-68 End date - 10-31-68

High school or college courses in computer science (data processing) require the evaluation of each student's efforts for partial credit, method of approach, and uniqueness of solution. Presently this is done by the instructor. It is the objective of this study to develop a technique to aid the instructor in this evaluation task by using the computer for the evaluation and grading of students' efforts by expanding on the concept of the "automated computer programing problem sets." Efficiency of the computer in evaluating student results will be a prime goal. The first task will be to develop two automated problem sets on hexadecimal and symbolic programing for the student. This will be used to test evaluation techniques, and give both teacher and student practice with basic machine language computer commands and fundamental programing techniques. Programs will be developed for the effective execution of problems, using the automated sets, and for instructor evaluation of the results. The last part of the study will be an evaluation of teaching techniques by automatic data processing methods. The computer will be used to reduce data and run analysis of variance programs on these data. A student body of over 400 students enrolled in computer science courses at the Florida Institute of Technology will be the sample population used to evaluate the automated problem sets. (PM)

EP 011 096 08 $237,504 Goebel
A COMPUTER-BASED VOCATIONAL GUIDANCE SYSTEM.
Investigator - Flanagan, John C.
American Institute for Research in Behavioral Sciences
Bureau No. - BR-7-0109 Proposal date - 07-26-66
Basic Studies Branch, DCVR
Pennsylvania Congressional District No. 14
Grant OEG-0-8-070109-3530
FY68 - $90,000. 04-01-68.01-31-69* FY69 - $147,504.
02-01-69.01-31-70
Descriptors - *GUIDANCE COUNSELING, *VOCATIONAL COUNSELING, *COMPUTER ORIENTED PROGRAMS, COMPUTER PROGRAMS, *GRADE 9, JUNIOR HIGH SCHOOL STUDENTS, SECONDARY SCHOOL COUNSELORS, SECONDARY SCHOOL STUDENTS, PROJECT TALENT, PALO ALTO CALIFORNIA, PITTSBURGH PENNSYLVANIA
Start date - 04-01-68 End date - 01-31-70

A computer-based vocational guidance system will be developed and tested on groups of ninth-grade students. The computer system will integrate measures of student abilities, aptitudes, and interests with guidance learning units developed for Project Talent. Guidance learning units relevant to the full range of vocations will be identified and cataloged for computer retrieval, and computer programs (based on Project Talent data) will be developed to retrieve and display experiences of various kinds of students for each vocation. Project Talent test profiles will then be obtained for the participating students and used as a basis for displaying the experience of similar students in various vocations and for suggesting relevant guidance learning units. Comparisons of students receiving computer-based guidance with control groups will enable evaluation of the system. (WN)

EP 011 105 24 $1,486,080 Otte

A SYSTEM FOR INDIVIDUALIZING AND OPTIMIZING LEARNING THROUGH COMPUTER MANAGEMENT OF THE EDUCATIONAL PROCESS.

Investigator - Schure, Alexander; and others
New York Institute of Technology Inc., New York
Bureau No. - BR-8-0157 Proposal date - 09-08-67
Instructional Materials and Practices Branch, DCVR
New York Congressional District No. 3
Contract OEC-0-8-080157-3691
FY68 - $296,880. 05-01-68.04-30-69* FY69 - $594,600.
05-01-69.04-30-70* FY70 - $594,600. 05-01-70.04-30-71
Descriptors - *COMPUTER ORIENTED PROGRAMS, *INSTRUCTIONAL TECHNOLOGY, MULTIMEDIA INSTRUCTION, *INDIVIDUALIZED CURRICULUM, COUNSELING, GUIDANCE, EVALUATION, *EDUCATIONAL ADMINISTRATION, MANAGEMENT, *COMPUTER ASSISTED INSTRUCTION, EDUCATIONAL STRATEGIES, INSTRUCTIONAL DESIGN, OLD WESTBURY, LONG ISLAND NEW YORK
Start date - 05-01-68 End date - 04-30-71

A computer-based instructional management system will be developed and tested. The system will be adaptive to provide an optimum instructional systems design. Elements of the system model are (1) curriculum behavioral objectives, (2) student characteristics profiles and selection criteria, (3) instructional materials, objectives, and content, (4) instructional strategies, (5) evaluation instruments and procedures, (6) instructional decision making, (7) organization and facilities, and (8) feedback and restructure mechanisms. The system will be used to manage individualized education and training. It will be useful as a diagnostic tool, for prescribing instructional materials and sequences, and for cost-effectiveness evaluations. Additionally, it will provide an empirical base for refinement and development of curriculum materials. (WN)

EP 011 113 24 $163,000 Cummings

A COMPETENCY BASED, FIELD CENTRAL SYSTEMS APPROACH TO ELEMENTARY TEACHER EDUCATION.

Investigator - Schalock, H. Del
Northwest Regional Educational Lab., Portland, Oregon
Bureau No. - BR-8-9022 Proposal date - 12-28-67
Instructional Materials and Practices Branch, DESR
Oregon Congressional District No. 3
Contract OEC-0-8-089022-3318
FY68 - $163,000. 03-01-68.10-31-68
Descriptors - *TEACHER EDUCATION, TEACHER EDUCATION CURRICULUM, *COMPUTER ASSISTED INSTRUCTION, COMPUTER ORIENTED PROGRAMS, *ELEMENTARY SCHOOL TEACHERS, TEACHER QUALIFICATIONS, TEACHER EVALUATION, *INDIVIDUALIZED CURRICULUM, INSTRUCTIONAL TECHNOLOGY, INSTRUCTIONAL INNOVATION, THE COMFIELD PROGRAM, CHAPMAN COLLEGE, ORANGE CALIFORNIA, PORTLAND OREGON

Start date - 03-01-68 End date - 10-31-68

The Northwest Regional Educational Laboratory cooperatively with teacher training agencies and educational researchers will develop plans and specifications for a competency-based, field-centered, model elementary teacher education program (The Comfield Program). The consortium will include representatives from private industry, and the Department of Instructional Systems Technology at Chapman College, Orange, California. The professional education curriculum for elementary teachers will be defined in behavioral terms. Instructional systems will be designed to develop the required teacher competencies, and provisions will be made for student teachers to demonstrate their competencies under supervised laboratory, clinical, and internship conditions. A computer-based instructional management system will provide for individualized instruction. Procedures for evaluating competencies and prescribing developmental experiences will be specified. Additionally, the model system will include specifications for support systems, administrative systems, and cost-effectiveness procedures. (WN)

EP 011 125 24 $10,000 Murnin
COMPUTER-ASSISTED INSTRUCTION IN TEACHING NUMERICAL METHODS.
Investigator - Conte, S. D.
Purdue Research Foundation, Lafayette, Indiana
Bureau No. - BR-8-E-010 Proposal date - 07-67
Regional Research Program, OAC
Indiana Congressional District No. 2
Grant OEG-0-8-080010-3532
FY68 - $10,000. 04-01-68.10-31-69
Descriptors - *COMPUTER ASSISTED INSTRUCTION, INSTRUCTIONAL TECHNOLOGY, *MATHEMATICS INSTRUCTION, TEACHING PROCEDURES, TEACHING TECHNIQUES, *METHODS RESEARCH, EVALUATION, COMPARATIVE ANALYSIS, *COLLEGE INSTRUCTION, COLLEGE MATHEMATICS, *LECTURE, FORTRAN 4, LAFAYETTE INDIANA
Start date - 04-01-68 End date - 10-31-69

An investigation will be completed to determine the feasibility of using a computer to teach a one-semester college course in numerical methods. Subject matter for the course will be selected and prepared for use in a computer-assisted instruction (CAI) system. Measures of student achievement for the developed course will be compared with student achievement attributable to classroom lecture procedures. Effects of prior learning, ability, and achievement will be controlled. Problems associated with operation of the CAI system within a general time-shared computer system will be analyzed. Course materials will be written in FORTRAN IV using branching for reinforcement, testing, and discovery. (WN)

EP 011 138 24 $7,200 Hirsch

THE FINANCIAL SUPPORT, USAGE, DECISION MAKING AND PLANNING OF COMPUTER CENTERS IN HIGHER EDUCATION.

Investigator - Chapin, June R.

Notre Dame College, Belmont, California

Bureau No. - BR-8-I-066 Proposal date - 11-01-67

Regional Research Program, OAC

California Congressional District No. 11

Grant OEG-9-8-081066-0128

FY68 - $7,200. 06-18-68.08-31-69

Descriptors - *HIGHER EDUCATION, *COMPUTERS, COMPUTER SCIENCE, FINANCIAL SUPPORT, *DECISION MAKING, *PLANNING, *USE STUDIES, QUESTIONNAIRES, SURVEYS, USOE REGION 9

Start date - 06-18-68 End date - 08-31-69

This research will seek answers to four questions concerned with the impact of expanding computer center roles of higher education. Four questions comprise the focus of the study--(1) what is the computer centers' financial support, (2) what are the computer centers' usage patterns, (3) who makes the crucial computer decisions, and (4) what changes are anticipated for computer center decision makers in the next 5 years. A questionnaire survey will be attempted with higher education institutions in USOE Region 9. Questionnaires on computer center decision making and planning will also be sent to various higher education administrators, department chairmen and computer center directors. Additionally, financial data of the public institutions will be checked by data collected from state agencies. (WN)

EP 011 155 24 $6,209 Haswell

A BIBLIOGRAPHY BOTH IN MANUSCRIPT FORM AND ON COMPUTER TAPES OF ALL

Investigator - McNamee, Lawrence F.

East Texas State University, Commerce

Bureau No. - BR-8-G-029 Proposal date - 10-24-67

Regional Research Program, OAC

Texas Congressional District No. 4

Grant OEG-7-8-000029-0060

FY68 - $6,209. 06-01-68.08-31-68

Descriptors - *BIBLIOGRAPHIES, *ENGLISH LITERATURE, *DOCTORAL THESES, COMPUTERS, INFORMATION STORAGE, ENGLISH LITERATURE DISSERTATIONS, OEC 5 10 355, AMERICAN UNIVERSITIES, BRITISH UNIVERSITIES, GERMAN UNIVERSITIES

Start date - 06-01-68 End date - 08-31-68

This project, a continuation of USOE Contract OEC-5-10-355, is to update English and American literature dissertations in manuscript form and on computer tape. The project will deal with dissertations accepted by American, British, and German universities from 1865 to 1968. The initial bibliography contained 15,000 topics. The updated list will contain 3,000 additional dissertations. Punched cards will be prepared for each additional dissertation. Edit lists will be produced and submitted for verification to 200 universities for approval. Punched card corrections will be prepared and the data will be merged with existing data on computer tape which will be used to prepare the updated manuscript. The updated computer tape and a manuscript copy will be prepared for the U. S. Office of Education. (WN)

EP 011 163 24 $8,858 Hefley
A STUDY FOR THE COORDINATION OF EDUCATION INFORMATION AND DATA PROCESSING FROM KINDERGARTEN THROUGH COLLEGE.
Investigator - Kennan, William W.; Ericksen, Gerald L.
Minnesota State Department of Education, St. Paul
Bureau No. - BR-8-F-001 Proposal date - 03-15-68
Regional Research Program, OAC
Minnesota Congressional District No. 4
Grant OEG-6-8-008001-0006
FY68 - $8,858. 07-01-68.02-28-69
Descriptors - *INFORMATION SYSTEMS, *STATE AGENCIES, *COORDINATION, *PLANNING, DATA PROCESSING, INFORMATION STORAGE, INFORMATION RETRIEVAL, INFORMATION DISSEMINATION, *MANPOWER NEEDS, PROFESSIONAL PERSONNEL, SUBPROFESSIONALS, MINNESOTA
Start date - 07-01-68 End date - 02-28-69

The feasibility of coordinating educational information systems and associated data processing efforts in the state of Minnesota will be studied. An organization made up of key organizations involved in information technology will--(a) study the status of educational information systems in the state, (b) study needs for professional and technical personnel, (c) stimulate interinstitutional cooperation between educational agencies' data processing functions, and (d) provide leadership in the area of educational data processing for the benefit of all agencies. Subsequently the effort envisions a statewide governor's conference to mobilize interests and efforts in information systems encompassing discussion and planning. Finally a state plan for educational information systems will be prepared with a set of implementing instructions detailed so other states or regions may use them. (WN)

EP 011 177 24 $8,598 Abell
DEVELOPMENT OF A SPECIAL COMPUTER PROGRAM TO DESIGN SCHOOL BUS ROUTES.
Investigator - Ross, Tony A.; Boyer, Roscoe A.
Mississippi University, University
Bureau No. - BR-8-D-049 Proposal date - 12-67
Regional Research Program, OAC
Mississippi Congressional District No. 2
Grant OEG-4-8-080049-0048
FY68 - $8,598. 06-01-68.12-31-68
Descriptors - *COMPUTER PROGRAMS, *PROGRAMING, *SCHEDULING, *BUS TRANSPORTATION, FORTRAN, SYMBOLIC PROGRAMING SYSTEM (SPS)
Start date - 06-01-68 End date - 12-31-68

A computer program previously developed to design school bus routes will be converted into another computer program language in this project. The present program, Symbolic Programing System (SPS), has limitations due to the developments in computer equipment and the demands placed on the SPS Program. The SPS Program will be converted to FORTRAN language so that there will an increase in processing speed, a decrease in memory requirements, and production of output in the form of student bus-pass cards. The new program will be developed to produce (1) bus routes with verbal description of pick-up points, time arriving, and time returning, (2) student time cost and bus time cost, and (3) seating assignments. An operator's manual will also be produced. (RS)

EP 011 201 24 $5,500 McCann
INSTRUCTION USING EXPERIMENTS IN A COMPUTER.
Investigator - Hazeltine, Barrett
Brown University, Providence, Rhode Island
Bureau No. - BR-8-A-025 Proposal date - 06-12-67
Regional Research Program, OAC
Rhode Island Congressional District No. 1
Grant OEG-1-8-080025-0038
FY68 - $5,500. 06-28-68.05-31-69
Descriptors - *COMPUTER ORIENTED PROGRAMS, *COMPUTER PROGRAMS, COMPUTER BASED LABORATORIES, *COMPUTER ASSISTED INSTRUCTION, *ENGINEERING EDUCATION, ENGINEERS, COLLEGE STUDENTS, ENGINEERING, MECHANICS (PROCESSES), *DESIGN, ELECTRONICS, PROBLEMS, SYNTHESIS, MODELS, SIMULATORS, BROWN UNIVERSITY, PROVIDENCE RHODE ISLAND, FIELD HOUSE DESIGN PROBLEM, CIRCUIT DESIGN PROBLEM
Start date - 06-28-68 End date - 05-31-69

Computer programs to illustrate fundamental physical design problems will be written. The purpose is to make engineering concepts more meaningful to beginning engineering students. Problems will be built around models of physical principles to be used as a set of experiments to be performed by students using a digital computer. Each of two computer design problem models will--(1) provide opportunities for students to discover and learn the implication of the principles in application, and (2) provide for synthesis which requires the students to find parameter values which are evaluated by the model to be a system yielding specific behavior desired. The programs to be developed are--(1) field house design problem, and (2) double tuned circuit design problem. The programs will be used at Brown University--Providence, Rhode Island by means of consoles on a time-shared basis. Programs to be written in FORTRAN IV will be made available to interested teachers and researchers. Subject matter of the problems will deal with elementary mechanics and elementary circuit theory. (WN)

EP 011 204 24 $9,594 McCann

PROGRAMING FOR THE FACILE USE OF THE IBM 360 COMPUTER AS A LABORATORY INSTRUMENT IN SOCIAL SCIENCE STATISTICS COURSES.

Investigator - Shapiro, Gilbert
Boston College, Chestnut Hill, Massachusetts
Bureau No. - BR-8-A-009 Proposal date - 06-26-67
Regional Research Program, OAC
Massachusetts Congressional District No. 8
Contract OEC-1-8-080009-0036
FY68 - $9,594. 07-01-68.02-28-69
Descriptors - *COMPUTER PROGRAMS, *COMPUTER BASED LABORATORIES, *STATISTICS, STATISTICAL ANALYSIS, SOCIOMETRIC TECHNIQUES, COLLEGES, HIGHER EDUCATION, UNDERGRADUATE STUDY, *LABORATORIES, LABORATORY TECHNIQUES, *LABORATORY TRAINING, MATHEMATICS
Start date - 07-01-68 End date - 02-28-69

Computer programs will be developed to facilitate use of the computer as a laboratory instrument in undergraduate and graduate social statistics courses. The objective is to permit teachers to assign computer-laboratory exercises to study the mechanics of statistics. It will be assumed both teachers and students have had little or no prior computer-use experience. Simple program language will be generated so commands from the student are reduced to expressions as 'Add X.' The design features of the programs will include accommodations for students with limited background experience as well as those with advanced statistical backgrounds. The system is intended to be published and compatible with the 360 series computers. The programs are to be modular thereby facilitating a wide variety of statistical experiments. A tentative list of the programs to be developed includes--(1) data generators, (2) scaler arithmetic, (3) matrix arithmetic, (4) statistical subroutines (parametric and nonparametric), and (5) program control. The system will be publicized in professional journals and notices with descriptions of its features. Tapes and manuals to be prepared will be provided to requesters at cost. (WN)

EP 011 216 24 $4,000 Mayeske

COMPUTER MODELS OF STUDENT ACHIEVEMENT.

Investigator - Beaton, Albert E.
Beaton (Albert E.) Associates, Princeton, New Jersey
Bureau No. - BR-8-8051 Proposal date - 04-12-68
Program Planning and Evaluation, OAC
New Jersey Congressional District No. 4
Contract OEC-0-8-088051-3690
FY68 - $4,000. 05-15-68.07-15-68

Descriptors - *COMPUTER PROGRAMS, *ACADEMIC ACHIEVEMENT, MODELS, *EDUCATIONAL OPPORTUNITIES, *NATIONAL SURVEYS, *INDIVIDUAL DIFFERENCES, STUDENT CHARACTERISTICS, STATISTICAL ANALYSIS, RESEARCH TOOLS, FORTRAN, BUREAU OF RESEARCH, U.S. OFFICE OF EDUCATION, EDUCATIONAL OPPORTUNITIES SURVEY EOS

Start date - 05-15-68 End date - 07-15-68

A computer program which will be prepared and debugged will read, select, and accumulate data and compute correlation and regression analyses of data from the educational opportunities survey. The data to be treated will be related to individual differences of students and various factors important to individual achievement. No formal report will be prepared but the USOE project officer will participate in acceptance trials. Finished programs are to be submitted to the Bureau of Research, U. S. Office of Education. (WN)

EP 011 222 24 $29,829 Broderick
CURRICULUM DEVELOPMENT MOBILE INSTRUCTION LABORATORY FOR EDUCATORS.
Investigator - Humphries, Neil J.
Commonwealth Development Association, Harrisburg, Pennsylvania
Bureau No. - BR-8-0449 Proposal date - 05-13-68
Instructional Materials and Practices Branch, DESR
Pennsylvania Congressional District No. 17
Grant OEG-0-8-080449-4426
FY68 - $29,829. 06-15-68.09-15-68

Descriptors - *COMPUTER BASED LABORATORIES, *COMPUTER ASSISTED INSTRUCTION, *TEACHER EDUCATION CURRICULUM, INSERVICE TEACHER EDUCATION, *COMPUTER SCIENCE, *MOBILE LABORATORIES, MOBILE EDUCATIONAL SERVICES, MILE PLAN, HARRISBURG PENNSYLVANIA

Start date - 06-15-68 End date - 09-15-68

A curriculum for a mobile instruction laboratory for teaching elementary and secondary school teachers the fundamentals of electronic data processing will be developed. The teaching plan is to encompass about 300 class-hours of computer 'hands-on' experience. Technical literature and visual aids and materials available in the data processing industry will be selected and supplemented with detailed and unbiased materials (to be prepared). Computer activities, as training aids, will be investigated and documented for--use of data banks, language translation systems, essay correction programs, and other computer applications. The proposed curriculum will deal with--(1) general background and programming, (2) systems and procedures, and (3) advanced applications to individual disciplines. The curriculum will implement a concept designed to provide educators with a working understanding of current computer techniques as part of the Mile Plan (Mobile Instruction Curriculum Laboratory for Educators). (WN)

EP 011 224 24 $65,458 Westerlund
THE DEVELOPMENT OF MATERIALS FOR THE TRAINING OF SCIENCE EDUCATION PERSONNEL IN EDUCATIONAL TECHNOLOGY.
Investigator - Smith, Herbert A.
National Science Teachers Association, Washington, D. C.
Bureau No. - BR-8-0427 Proposal date - 01-13-68
Research Training Branch, DHER
District of Columbia
Grant OEG-3-8-080427-0052
FY68 - $65,458. 05-01-68.12-31-68
Descriptors - *INSTRUCTIONAL TECHNOLOGY, INSTRUCTIONAL TELEVISION, *PROGRAMED INSTRUCTION, COMPUTER ASSISTED INSTRUCTION, *INSTRUCTIONAL MATERIALS, MEDIA TECHNOLOGY, SYSTEMS APPROACH, SCIENCE TEACHERS, *INSTITUTES (TRAINING PROGRAMS), INSERVICE TEACHER EDUCATION, EQUIPMENT
Start date - 05-01-68 End date - 12-31-68

An instructional package will be developed to meet a selected set of behavioral objectives for a science supervisions institute. The package will permit work with various types of hardware utilizing programed materials in an educational situation. All of the units will contain--programed textual materials, filmstrips, slides, scripts, specifications for the instructional package, a procedure for instruction presentation, and administrative directions with a list of the expected terminal behaviors and a criterion test for assessing attainment of the selected objectives. Stage 1 of the Project 7-C-006 dealing with, "The Use of Educational Technology in Providing Knowledge of Educational Technology and Suggestions for Its Application to Supervisors," was previously reported. This report identified behavioral objectives for the current proposed effort. Topics to be considered are--orientation to terminology, the objectives and organization of the institute, need for and description of education technology, description of learning systems (teach/learn), design and development of learning systems, school computer applications, instructional television, teacher loads and individualized instruction, problems with implementation, evaluation of educational technology (hardware and software), and sources of information. (WN)

EP 011 233 24 $14,517 Beezer
COMPUTER PROGRAM TO CONVERT WORK ORTHOGRAPHY TO PHONEME EQUIVALENTS.
Investigator - Leton, Donald
Hawaii University, Honolulu
Bureau No. - BR-8-0114 Proposal date - 07-01-67
Basic Studies Branch, DESR
Hawaii Congressional District No. 2 At Large
Grant OEG-9-8-080114-0105
FY68 - $14,517. 05-03-68.05-02-69

Descriptors - *COMPUTER PROGRAMS, *SIMULATION, *READING, *ENGLISH, GRAPHEMES, PHONEMES, WRITTEN LANGUAGE, *ORAL ENGLISH, DEVELOPMENT, EVALUATION, UNIVERSITY OF HAWAII, HONOLULU

Start date - 05-03-68 End date - 05-02-69

A computer program will be further developed to translate printed English words into their oral equivalents. A computer program previously developed to accept printed English words as input, analyze them to identify their component graphemes and phonemes, and produce the phoneme outputs will be used. This effort will deal with--storage of exceptions, learning, and processing with the purpose of incorporating additional features in the program and testing the efficacy of the program in an operational simulation of reading. The phonemes selected will be based on (1) phonemic rules which are generated by the computer program from its analysis of unfamiliar words, and (2) accumulated probabilities recorded in a matrix of grapheme-phoneme associations. Related objectives include analysis of types of errors or inadequacy of stored rules, and analysis of redundancy in the grapheme-phoneme association matrix. Facilities at the University of Hawaii will be used for this research. (WN)

EP 011 236 08 $428,265 Goebel

IMPLEMENTATION OF VOCATIONAL COUNSELING SYSTEM.

Investigator - Silberman, Harry F.; Estavan, Donald P.

System Development Corporation, Santa Monica, California

Bureau No. - BR-7-1229 Proposal date - 03-21-68

Basic Studies Branch, DCVR

California Congressional District No. 28

Grant OEG-9-8-071229-0122

FY68 - $96,867. 06-18-68.12-18-68* FY69 - $248,544. 12-19-68.12-31-69* FY70 - $82,854. 01-01-70.10-31-70

Descriptors - *COMPUTER ORIENTED PROGRAMS, *VOCATIONAL COUNSELING, OCCUPATIONAL INFORMATION, GUIDANCE COUNSELING, *GROUP COUNSELING, COUNSELOR TRAINING, HIGH SCHOOL STUDENTS, JUNIOR HIGH SCHOOL STUDENTS, INNOVATION, *EVALUATION, USOE PROJECT NUMBER 141 65, Q 32 COMPUTER SYSTEM, IBM 360 65, LOS ANGELES SCHOOL DISTRICT, JAMES MONROE HIGH SCHOOL, FRANCISCO SEPULVEDA JUNIOR HIGH SCHOOL, PLANIT

Start date - 06-18-68 End date - 10-31-70

Phase 2 of an exploratory study of information processing procedures and computer technology in vocational counseling will be performed. Phase 2 will be concerned with the implementation and evaluation of the computer-based counseling system established in a large junior high school and a senior high school. Computer programs are to be developed for use with time-sharing systems (Q-32 and IBM 360/65). A special user language will be developed permitting counselors to adapt their retrieval and input commands to their own personal styles. Interactive input/output terminals are to be installed in both schools where counselors will be trained to use the system and in group counseling techniques. For evaluation purposes data now being collected will be used. These data relate to counselor and student attitudes, the allocation of time for counseling, student dropout rate, and student attitudes toward vocational development analysis of the data will be focused on defining and describing the changes and directions of change in related system variables. The final report will be written to serve as a manual useful for developing man-machine counseling systems. An attempt will be made to include the Phase 1 report as a monograph in the final report. (WN)

EP 011 256 24 $9,458 Sokol
OPTIMAL USE OF A COMPUTER BASED INSTRUCTION SYSTEM IN AN EXISTING URBAN SCHOOL DISTRICT.
Investigator - Stankard, Martin F.; Sisson, Roger L.
Pennsylvania University, Philadelphia
Bureau No. - BR-8-B-087 Proposal date - 67
Regional Research Program, OAC
Pennsylvania Congressional District No. 1
Grant OEG-0-8-080087-3731
FY68 - $9,458. 06-24-68.04-24-69
Descriptors - *COMPUTER ASSISTED INSTRUCTION, URBAN AREAS, COMPUTER ORIENTED PROGRAMS, PROGRAMED INSTRUCTION, *OPERATIONS RESEARCH, METHODOLOGY, *PROGRAM IMPROVEMENT, SCHOOL DISTRICTS, PHILADELPHIA PENNSYLVANIA
Start date - 06-24-68 End date - 04-24-69

The purpose of this research will be to determine the best way to select and schedule students on a computer-aided instruction (CAI) system. The results will be tested by students enrolled in certain Philadelphia high schools. The system to be studied will include not only a computer-based instruction system, but also classroom-oriented instruction. Operations research methodology will be applied to this system. The results of this research should contribute to the use of CAI as an efficient operating tool rather than simply as a research vehicle. Ultimately, this research will involve four phases--(1) definition of the system, and identification and measurement of relevant factors, (2) building of a decision model of the system, (3) testing and revising the model against data from the system, and (4) use of the model to find the optimal solution for an actual case. (UA)

EP 011 257 24 $10,000 Sokol
DEVELOPMENT OF COMPUTERIZED TECHNIQUES IN MUSIC RESEARCH WITH EMPHASIS ON THE THEMATIC INDEX.
Investigator - Lincoln, Harry B.
State University of New York, Albany
Bureau No. - BR-8-B-089
Regional Research Program, OAC
New York Congressional District No. 29
FY68 - $10,000. 06-30-68.06-30-69
Descriptors - COMPUTER SCIENCE, *MUSIC EDUCATION, MUSIC, HISTORY, CULTURE, *COMPUTER ORIENTED PROGRAMS, *INSTRUCTIONAL MATERIALS, *INDEXING, ALBANY NEW YORK
Start date - 06-30-68 End date - 06-30-69

The purpose of this project will be to continue the development of significant new computer techniques for construction of thematic indexes of music, and for exploring the use of these new techniques in other areas of music. Originally submitted as a 3-year proposal, it was revised as a 1-year investigation to cover the first year's activities of the original proposal. This prior research effort has resulted in the construction of a pilot project of a thematic index of 4,000 melodies in the 16th-century Italian repertory known as "Frottola." The project's second year of work will include (1) continued encoding and keypunching of large bodies of 16th-century music plus the necessary computer operations to organize the material into meaningful printed output, (2) continued development of new programs to permit more sophisticated citations not only of duplications but also of similarities in melodic contours, and (3) expansion of cooperation among persons engaged in thematic indexing to develop "merging" of repertories from other researchers. This research will provide techniques, information, and bodies of music for performance valuable in several areas of education. The music history researcher will have available the first large, truly workable index of a vast repertory of music intensively studied today. Also, the music librarian will have a new bibliographical tool to offer a broad public seeking specific information and identification in various repertories. (UA)

EP 011 269 24 $8,775 Hirsch
COMPUTER-BASED INSTRUCTION IN SPELLING--AN INVESTIGATION OF OPTIMAL STRATEGIES FOR PRESENTING INSTRUCTIONAL MATERIAL.
Investigator - Atkinson, Richard C.
Stanford University, California
Bureau No. - BR-8-I-026 Proposal date - 08-04-67
Regional Research Program, OAC
California Congressional District No. 10
Grant OEG-9-8-000026-0076
FY68 - $8,775. 04-01-68.11-30-68
Descriptors - *COMPUTER ASSISTED INSTRUCTION, *SPELLING INSTRUCTION, *ELEMENTARY GRADES, GRADE 4, GRADE 5, GRADE 6, INSTRUCTIONAL TECHNOLOGY, *TEACHING TECHNIQUES, TEACHING METHODS, TEACHING PROCEDURES, *METHODS RESEARCH, INDIVIDUALIZED INSTRUCTION, COSTANO ELEMENTARY SCHOOL, EAST PALO ALTO CALIFORNIA, STANFORD CALIFORNIA, NEW IOWA SPELLING SCALE (GREENE 1954), GATES LIST OF SPELLING DIFFICULTIES (1937)
Start date - 04-01-68 End date - 11-30-68

Optimal strategies will be investigated for presenting words in the computer-based instruction of spelling. The study will also be concerned with various techniques for individualizing spelling content and for providing feedback to influence response to instruction. At the beginning of the school year, students from the upper grades of Costano Elementary School in East Palo Alto, California will become familiar with the operation of student booths where they will be tested and instructed through headphones and teletypes by a computer located on the Stanford University Campus. Each child is to be tested on a large word pool until each accumulates 48 errors that are coincident in the California State Spelling Series, the New Iowa Spelling Scale (Greene, 1954), and the 1937 Gates List of Difficulties in 3,876 Words. As each child accumulates 48 errors meeting the selection criteria, he will become a participant in the experiment. Each 48-word error list will be randomly divided into "optimized" and "non-optimized" lists with a third of the words from each list to be presented each day for a block of 3 days. After retesting, the words will be presented as chosen by selection rules for the optimized and non-optimized lists. Each child will see the non-optimized words once every 3 days. The words on the optimized list will be governed by a selection rule which chooses only words the child needs to study most. At 6-day intervals, words from the optimized list will be selected and presented at random to provide a basis for comparing the presentation strategies. At the end of the experiment, measures of final achievement will be taken followed by a delayed retention test of the entire list. (WN)

EP 011 288 24 $42,000 Harbeck
POSTDOCTORAL FELLOWSHIP PROGRAM IN EDUCATIONAL RESEARCH.
Investigator - Cooley, William W. and others
Pittsburgh University, Pennsylvania
Bureau No. - BR-8-0775 Proposal date - 05-10-68
Research Training Branch, DHER
Pennsylvania Congressional District No. 14
Grant OEG-0-8-980775-4657
FY68 - $42,000. 06-30-68.08-31-69
Descriptors - *POST DOCTORAL EDUCATION, *RESEARCH METHODOLOGY, LEARNING STRATEGIES, *CURRICULUM DESIGN, EDUCATIONAL STRATEGIES, COMPUTER MANAGEMENT, *COMPUTER ASSISTED INSTRUCTION, *FELLOWSHIPS, PITTSBURGH PENNSYLVANIA, INDIVIDUALLY PRESCRIBED INSTRUCTION
Start date - 06-30-68 End date - 08-31-69

This postdoctoral fellowship program will afford an opportunity for the selected participants to engage in intensive study which will expand their capabilities in the area of research methodology. The program will further provide them with extensive research experience. A plan for individual study will be developed which will include advanced work in educational statistics, design, and the use of the computer. Research experiences will be associated with research that is currently in progress in the "individually prescribed instruction" project and problems of learning strategies, curriculum design, and computer management which are associated with that project. There will also be opportunity to explore computer-assisted instruction. (UA)

EP 011 310 52 $104,480 Cylke
DEVELOPMENT OF A COMPUTER-BASED LABORATORY PROGRAM FOR LIBRARY SCIENCE STUDENTS USING L.C./MARC TAPES.
Investigator - Atherton, Pauline
Syracuse University, New York
Bureau No. - BR-8-0664 Proposal date - 03-26-68
Library and Information Sciences Research Branch, DITD
New York Congressional District No. 34
Grant OEG-0-8-080664-4400
FY68 - $104,480. 06-24-68.12-23-69
Descriptors - *COMPUTER BASED LABORATORIES, *LIBRARY SCIENCE, INFORMATION RETRIEVAL, INFORMATION PROCESSING, CATALOGING, SYRACUSE NEW YORK, LIBRARY OF CONGRESS
Start date - 06-24-68 End date - 12-23-69

Development of a computer-based laboratory program for library science students using the Library of Congress' MARC (Machine-Readable Cataloging) magnetic tapes will enable the students (1) to search and retrieve catalog records for current literature, (2) to process their own cataloging assignments, and (3) to examine the characteristics of the Library of Congress cataloging. After a 6-month implementation phase, the laboratory will be operated on an experimental basis for a 1-year period after which time an evaluation of the results will be conducted. If proven successful, the entire laboratory will be made available to other library schools. (DA)

EP 011 317 24 $20,904 Harbeck
POSTDOCTORAL FELLOWSHIP PROGRAM IN EDUCATIONAL RESEARCH.
Investigator - Cornbach, Lee J., and others
Stanford University, California
Bureau No. - BR-8-0788 Proposal date - 05-12-68
Research Training Branch, DHER
California Congressional District No. 10
Grant OEG-0-8-980788-4678
FY68 - $20,904. 06-30-68.06-30-69
Descriptors - *EDUCATIONAL RESEARCH, *POST DOCTORAL EDUCATION, RESEARCH PROJECTS, SEMINARS, INDEPENDENT STUDY, *MATHEMATICS, MATHEMATICAL MODELS, STATISTICS, COMPUTER SCIENCE, PSYCHOMETRICS, INFORMATION PROCESSING, *FELLOWSHIPS, STANFORD CALIFORNIA
Start date - 06-30-68 End date - 06-30-69

The postdoctoral fellowship program will enable promising holders of the doctorate to become more competent in conducting research pertinent to education. The program's significance will consist in giving the research worker freedom to undertake any of a variety of available activities that will increase his potential for contributing to education. In this program, the trainee will participate in research concerning the teaching and learning of mathematics. He also plans to advance his capabilities in statistics, psychometrics, mathematical and information-processing models, and computer science.

The program will be individually structured to meet the trainee's interests and needs and will consist of an appropriate combination of the following activities--attending classes and seminars, participating in research projects, planning or conducting research in consultation or collaboration with faculty members, and engaging in independent study. (UA)

EP 011 320 24 $18,850 Harbeck
POSTDOCTORAL FELLOWSHIP PROGRAM IN EDUCATIONAL RESEARCH.
Investigator - Cornbach, Lee J., and others
Stanford University, California
Bureau No. - BR-8-0791 Proposal date - 05-12-68
Research Training Branch, DHER
California Congressional District No. 10
Grant OEG-0-8-980791-4675
FY68 - $18,850. 06-30-68.06-30-69
Descriptors - *EDUCATIONAL RESEARCH, *POST DOCTORAL EDUCATION, SEMINARS, RESEARCH PROJECTS, INDEPENDENT STUDY, *STATISTICAL ANALYSIS, RESEARCH DESIGN, *COMPUTERS, *FELLOWSHIPS, STANFORD CALIFORNIA
Start date - 06-30-68 End date - 06-30-69

The postdoctoral fellowship program will enable promising holders of the doctorate to become more competent to conduct research pertinent to education. The program's significance consists in its giving a research worker freedom to undertake any of a variety of activities which will increase his potential for contributing to education. The trainee in this program plans to advance his competence in statistical analysis, research design, and use of the computer. He will attempt to develop a conceptual model to guide further research efforts. The program will be individually structured to meet the trainee's interests and needs and will consist of an appropriate combination of the following activities--attending classes and seminars, participating in research projects, planning or conducting research in consultation or collaboration with faculty members, and engaging in independent study. (UA)

EP 011 368 24 $4,037 Hirsch
STIMULUS APPROACH TENDENCIES OF LEARNERS AS A FACTOR IN INSTRUCTIONAL MATERIALS EVALUATION.
Investigator - Bruha, John J.
University of Southern California, Los Angeles
Bureau No. - BR-8-I-081 Proposal date - 68
Regional Research Program, OAC
Grant OEG-9-8-081081-0118
FY68 - $4,037. 06-17-68.12-31-68

Descriptors - *EVALUATION METHODS, EVALUATION, *EVALUATION CRITERIA, STUDENT EVALUATION, *FILMS, FILM PRODUCTION, *MEDIA TECHNOLOGY, ELECTROMECHANICAL AIDS, MEASUREMENT, PSYCHOPHYSIOLOGY, BIO COM MODEL 1010 TRANSDUCER

Identifiers - Los Angeles County, Los Angeles California

Start date - 06-17-68 End date - 12-31-68

A method of evaluating instructional materials will be developed which includes approach-tendencies of learners and evaluators toward the materials. Relationships will be made between evaluation statements (students and evaluators) and their session capillary pulse pressures as measured by a pulse transducer (Bio-Com Model 1010). Two random sessions of the Los Angeles County Schools' Secondary Film Evaluation Committee will be chosen for selecting the population to be studied. Two of the film showings out of six or eight normally shown at each session will be used to familiarize subjects with the sensing apparatus which is to be fitted to the right index finger tip of each subject with a lead to a pulse transducer. Pulse pressure ratings will be taken for the remaining sessions for each of ten evaluators and for each film shown. In addition to capillary pulse pressure data, the overt evaluations of the materials will be collected (completed evaluation forms). Similar procedures with the same materials will also be used with two separate 11th-grade groups (Los Angeles County Schools). Pulse pressures for each session will be fed into a computer using a biomedical computer analysis program developed at UCLA to compute pulse pressures for each film for each evaluator and inter-rater reliability for each film for each group. Correlation will be obtained for each film for each group between the sum of pulse pressures and overtly stated evaluations. The films are to be analyzed in detail to determine film characteristics which generate strong approach or strong avoidance tendencies in students so that film producers will have better bases for film planning. (WN)

EP 011 371 52 $14,980 Cylke

A STUDY OF THE COST OF MAINTAINING AND UPDATING LIBRARY CARD CATALOGS.

Investigator - Dolby, James L.

R and D Consultants Company, Los Altos, California

Bureau No. - BR-8-0292 Proposal date - 12-06-67

Library and Information Science Research Branch, DITD

California Congressional District No. 10

Contract OEC-9-8-080292-0107

FY68 - $14,980. 06-28-68.06-27-69

Descriptors - *LIBRARY EXPENDITURES, *LIBRARY RESEARCH, *COSTS, COST EFFECTIVENESS, *CATALOGS, BOOK CATALOGS, COMPUTER SCIENCE, *COMPUTERS, COMPARATIVE STATISTICS, LIBRARY REFERENCE SERVICES

Identifiers - Los Altos, California

Start date - 06-28-68 End date - 06-27-69

The cost of maintaining and updating library card catalogs will be investigated. The study will be aimed at collecting information from a number of different types and sizes of libraries and allocating costs to parts of the operation. Particular attention will be given the cost of detecting and correcting errors as opposed to the costs of not correcting the errors. A careful analysis will be made of the cost of using the catalog (including the cost of librarian's use). Cost factors will be compared with findings obtained from an evaluation (now in progress) of the cost and utility of computerized library catalogs. Cost and usage studies will be based on library visitations, tests of random samples of library holdings, and published studies of catalog operations. (WN)

EP 011 378 56 $135,000 Adrian
THE EDUCATIONAL INFORMATION NETWORK (EIN).
Investigator - Keenan, Thomas A.; Morse, Harrison R.
Interuniversity Communication Council, Bethesda, Maryland
Bureau No. - BR-8-0697 Proposal date - 04-19-68
Instructional Materials and Practices Branch, DHER
Maryland Congressional District No. 8
Grant OEG-0-8-080697-4468
FY68 - $135,000. 06-30-68.06-30-70
Descriptors - *NETWORKS, *INFORMATION SYSTEMS, *COMPUTER PROGRAMS, COMPUTERS, COMPUTER SCIENCE, *INFORMATION SERVICES, INFORMATION SOURCES, INFORMATION DISSEMINATION, *COOPERATIVE PROGRAMS, COLLEGES, UNIVERSITIES, CATALOGS
Identifiers - EDUCOM, EDUNET, Educational Information Network (EIN)
Start date - 06-30-68 End date - 06-30-70

An Education Information Network (EIN) will be established and operated by EDUCOM (Interuniversity Communications Council). EIN will be a network for sharing computational capability among network resource and user nodes. Existing and proposed networks are to be studied and critically evaluated. Working relationships will be established with developing networks to foster compatibility, avoid duplication of effort, and to discover desirable capabilities that can be made more widely accessible. Immediate products of this project will be reports of the successes and failures of existing networks and a regularly maintained catalog of computer capabilities that can be accessed through EIN (an outgrowth of EDUNET). EIN will be an organizational network basically concerned with the flow of network meta-information (billing, cost accounting instructions, standards, performance data and data concerning the state of the networks). (WN)

EP 011 393 24 $9,956 Westerland
COUNSELOR RESEARCH TRAINING.
Investigator - Long, Thomas
Altoona Area School District, Pennsylvania
Bureau No. - BR-8-8038 Proposal date - 01-01-68
Research Training Branch, DHER
Pennsylvania Congressional District No. 12
Grant OEG-0-8-088038-4455
FY68 - $9,956. 06-24-68.08-24-68
Descriptors - *INSTITUTES (TRAINING PROGRAMS), *COUNSELOR TRAINING, COUNSELORS, *ELEMENTARY SCHOOL COUNSELORS, *SECONDARY SCHOOL COUNSELORS, *RESEARCH METHODOLOGY, RESEARCHERS, RESEARCH DESIGN, RESEARCH SKILLS, COMPUTER SCIENCE, RESEARCH TOOLS.
Identifiers - Altoona Pennsylvania, Pennsylvania
Start date - 06-24-68 End date - 08-24-68

An institute will be conducted to train 25 selected school counselors in appropriate research systems, programs, services, and strategies. The institute will be designed to train participants to collect and analyze masses of student data available to them. Basic FORTRAN programing will be offered as well as methods for accessing computers using punched card or tape input. Punched paper-tape training and demonstrations will involve the use of remote teletype terminals. Included will be a discussion and demonstration of the ERIC system and its capabilities. Training will also be given in Program Evaluation Review Techniques (PERT) and Campbell and Stanley's Pre-experimental and Experimental Research Designs. The institute will be evaluated by participants and findings are to be reported. Participants will be selected from the Altoona Area (Pennsylvania) using as criteria possession of a master's degree in guidance, state certification as a guidance counselor, and full-time employment as an elementary or secondary school counselor with evidence of successful completion of at least one graduate-level statistics course. (WN)

Proposal No. 7-9001 Recommended: P.L. 89-10, Title IV, Cooperative Research Program Otte
FEASIBILITY STUDY FOR A REMOTE-TERMINAL, CENTRALIZED COMPUTER SYSTEM
Investigator - Stone, J. L.
IBM - International Business Machines Corporation, 1111 Connecticut Avenue, N. W., Washington, D. C. 20036
FY67 - $85,000. Total Federal Funds - $85,000. Duration - 4 1/2 Months

Purpose of Project: This study will supply the functional analysis and preliminary specifications for a central computer facility having remote terminals in 50 educational institutions which have a total enrollment of 100,000 students. The system will be used to train students in the use of standard programing languages; to compute solutions to student problems in other academic subject areas; and to perform administrative record maintenance. Contribution to Education: The government feels that it is essential that large numbers of professionally and vocationally oriented students become familiar with modern data-processing techniques. The study will determine the economical parameters of supplying computer services to small and medium-sized educational institutions through remote terminals from a large central computer center. Methodology: The contractor will conduct an investigation to describe the geographic, user population, and intended use attributes of the system. Upon completion of the investigation, the tangible information will be used to synthesize various system organizations. The resultant hardware and software systems then will be configured and an analysis will be conducted to determine system load, performance, and cost measures. The particulars of the analysis and the intangibles identified in the investigation will be used with IBM system experience to recommend a particular system organization.

OE Use 0 80814

POLITICS AND DIPLOMACY IN THE ARAB WORLD: 1930-1967 DOCUMENTARY AND CHRONOLOGICAL STUDY, STORAGE, ANALYSIS, AND RETRIEVAL BY USE OF COMPUTER PROGRAMS.

Investigator - Mansoor, Menahem
Wisconsin University

The importance of area-centered studies of the Arab world is undeniable but so are the difficulties of such studies. These arise partially because of the serious language barriers experienced by Western diplomats and specialists of international relations, and partially because of the sketchy, widely-scattered and nowhere-systematically catalogued sources of primary information, such as the previous and current constitutions, international agreements and foreign policy speeches, of, by, or about Arabs. It is with a hope of meeting, in a large measure, both of these difficulties that this project has been undertaken. The purpose of this work is to identify, study, and critically describe all of the Arab documents and international agreements entered into by the Arab countries from 1930-1967, as well as such prior agreements as seem particularly relevant to the later period. All types of documents are included: agreements, constitutions, declarations, decrees, oil concessions, exchange of notes, letter or messages, important laws bearing on international relations, memoranda, minutes (agreed), protocols, reports, statements (radio, television), treaties, verbal notes, ratifications, policy making speeches and articles, UN reports, and resolutions. The project should meet the ever-increasing demand for information for this strategic region of the world through a computer-based documentary analysis, storage and retrieval system. An analytical index will be formed by using the 3600 computer system at The University of Wisconsin Computer Center. An initial small grant for this purpose was made by the UW Research Committee. The applicant feels confident that a program has been prepared to provide indexing, abstracting, translating and other services leading to a more effective dissemination of information relating to the above project. Completed: 1956-1958 documentary study (8 volumes), 1956-1961 chronological study (6 volumes). See also attached materials and samplings. To Complete: 1957-1959 and 1930-1955 volumes. All materials up to 1961 have been completed in draft form. These have to be organized and edited.

No. - 8-0677 Submitted Under Provisions of P.L. 531

THE CONSTRUCTION OF AN ALGORITHM FOR STEM RECOGNITION OF THE HEBREW LANGUAGE.

Investigator - Katsh, Abraham I.

Institute of Hebrew Studies, New York University, New York

Date Transmitted - 12-20-67

This is a continuation of Research Project No. 6-1263, Contract No. OEC-17-061263-1656. (a) Objectives: The objective of this research is to construct a reference dictionary of the Hebrew language with certain distinguishing features. The dictionary is to consist of two sections, a verbal and a noun section. The entries are to be so classified as to be adaptable to computer operations designed for special investigations into Hebrew linguistics. This dictionary will supplement the completion of the Algorithm for Stem Recognition of the Hebrew Language which is presently in the process of construction under Project # 6-1263, Contract # OEC-17-061263-1656. A further objective is to examine the theory of the rules designed for the algorithm in terms of a new method in the teaching of the Hebrew language. (b) Procedures: The most recent scientific dictionaries will be scrutinized for the purpose of selecting appropriate entry material and relevant information. The classification procedure in organizing the dictionary will be adapted to the already established tables which correlate grammatical categories with the aggrupation of all Hebrew affixes. These tables have already furnished the computer with the basis for fractionating a given word and testing the fractionations in various combinations. This done, a residue of stem-affix combination remains. The projected dictionary will then be utilized to assist the computer in eliminating the illegitimate members of the residue.

APPENDIX C

Reports in Research in Education on Computer-Related Activities

Research in Education (RIE) is a monthly journal prepared by the Educational Resources Information Center (ERIC) of the Bureau of Research. RIE includes information about reports received from research projects funded by the U.S. Office of Education as well as other reports collected by the 19 clearinghouses that comprise the national network. The research projects in this section are listed in numerical sequence by the ED number as it appears in RIE.

Reports in Research in Education on Computer Related Activities

(Project) Report Number 1/	Investigator/ Institution	Title of (Project) Report	Year Completed
(CRP-783) ED 002 935	Roscoe A. Boyer Univ. of Mississippi	The Use of Mathematical Programing to Solve Certain Problems in Public School Bus Transportation	
(CRP-371) ED 002 986	Bruce J. Biddle University of Missouri	A Program for the Processing of Ordinal Data and Computation of Significance for Selected Central Tendency Differences, Volume C - Studies in the Role of the Public School Teacher	1961
(CRP-1948) ED 003 024	Richard Wing Board of Cooperative Educational Services, Bedford Hills, New York	Use of Technical Media for Simulating Environments to Provide Individualized Instruction	1965
(CRP-1132) ED 003 045	J. G. Saw Virginia Polytechnic Institute	The Problem of Classifying Members of a Population on a Continuous Scale	1964
(5-0041) ED 000 091	Norman E. Watson Orange Coast College	An 8 week Summer Institute Training Program to Retain Office Education Teachers for Teaching Business Electronic Data Processing	1965
(5-0029) ED 003 096	Theodore Koschler Miami-Dade Junior College	An 8 week Summer Institute Training Program to Retain Office Education Teachers for Teaching Business Electronic Data Processing	1965

1/ "ED" or document number by which the project report is available in microfiche or hard copy for a small charge by writing NCR, Educational Resources Information Center Document Reproduction Service, 4936 Fairmont Avenue, Bethesda, Maryland 20014.

(5-0030) ED 003 100	Ivan E. Valentine North Carolina State Board of Education, Raleigh	An 8 week Summer Institute Training Program to Retain Office Education Teachers for Teaching Business Electronic Data Processing	1965
(5-0028) ED 003 110	Forest C. Carter Colorado State University	An 8 week Summer Institute Training Program to Retain Office Education Teachers for Teaching Business Electronic Data Processing	1965
(VII B -292-3) ED 003 114	Vernon Bronson National Association of Educational Broadcasters	A Report of a Study of Nationwide Assignments of Television Channels for Maximum Service and Efficiency by the Use of Electronic Digital Computer Methods	1963
(VII B -292-5) ED 000 124	Vernon Bronson National Association of Educational Broadcasters	UHF Television Assignment Plan, Report of the NAEB Study to Develop a UHF Assignment Plan Using Digital Computer Methods	1963
(5-0719) ED 000 217	John E. Coulson Systems Development Corp.	Nonprogram Variables in the Application of Programed Instruction	1965
(VII A - 1165) ED 003 223	Doris R. Entwisle Johns Hopkins University	Teaching Engineering Design - A Study of Jobshop	1965
(CRP-1275) ED 003 248	J. William Ashe Univ. of Pittsburgh	The High Speed Electronic Computer as a Research and Operations Device in School Law	1963
(CRP-1298) ED 003 251	Allen Kent Western Reserve University	The Library of Tomorrow--Today	1962
(CRP-1605) ED 003 290	R. A. Boyer Univ. of Mississippi	The Use of a Computer to Design School Bus Routes	1964
(CRP-1641) ED 003 295	Harry T. Weaver Auburn University	Computer Grading of Physics Laboratory Reports	1962

(CRP-1743) ED 003 306	Jean Tague Western Reserve University	Effectiveness of a Pilot Information Service for Educational Research Materials	1963
(CRP-2189) ED 000 330	Lewis Sawin University of Colorado	The Integration, Storage, and Retrieval of Bibliographic Data in English Studies	1965
(CRP D-112) ED 003 391	Robert S. Harnack State University of New York at Buffalo	The Use of Electronic Computers to Improve Individualization of Instruction Through Unit Teaching	1965
(CRP F-026) ED 003 405	John I. Goodlad University of California - Los Angeles	Application of Electronic Data Processing Methods in Education	1965
(VII B -069-9) ED 003 746	James D. Finn NEA	Instrumentation for Instruction, 1955-70	1960
(CRP S-156) ED 003 883	David T. Turney Kent State University	A Pilot Study for the Development of Educational Research Techniques and Procedures Suitable for the Measurement of Institutional Stability and Change	1965
(VI-78-5) ED 003 885	Harlan Lane University of Michigan	Preliminary Manual for the Speech Autoinstructional Device	1964
(5-8002) ED 010 094	William P. Ehling Syracuse University	Development of a Computer Model of the Factors Which Influence High School Students to Continue or Discontinue Their Education	1966
(5-8118) ED 010 110	Martin Reno Case Institute of Technology	Utilization of Computer Facilities in the Mathematics and Business Curriculum in a Large Suburdan High School	1966
(5-0253) ED 010 205	Robert Glaser Univ. of Pittsburgh	The New Pedagogy	1965

(5-0253) ED 010 207	Ronald Ragsdale Univ. of Pittsburgh	Recent Developments in Data Collection and Analysis for Experiments	1966
(6-1192) ED 010 428	Alan S. Issacs Murray Simon Rockland Community College, Suffern, New York	The Analysis and Development of a Semi-Automated Bus Utilization Scheduling System	1966
(6-1819) ED 010 432	Allan B. Ellis Charles B. Wetherall Harvard University	The Computer-Career Decisions	1966
(5-0253) ED 010 524	J. R. Ball Westinghouse Research Labs Pittsburgh, Penna.	Manipulation Pad - Preliminary Report on a Student-Computer Interface Device for Programmed Instruction	1966
(5-0234) ED 010 525	Karl Kroeber University of Wisconsin	A Computer Analysis of Fictional Prose Style	1966
(5-0997) ED 010 544	R. W. Gerard James G. Miller University of California, Irvine	Computers and Universities (A Workshop Conference Presented by the Univ. of Calif., Irvine, with the Cooperation of the Univ. of Michigan, Newport Beach	1967
(5-0738) ED 010 559	John F. Cogswell System Development Corp. Santa Monica, California	Construction of School Simulation Vehicle	1963
(5-0738) ED 010 560	John Cogswell System Development Corp.	Purpose and Strategy of the School Simulation Project	1963
(5-0738) ED 010 561	Robert L. Egbert John F. Cogswell System Development Corp.	System Design for a Continuous Progress School Part 1	1964
(5-0738) ED 010 562	Robert L. Egbert John F. Cogswell System Development Corp.	System Design for a Continuous Progress School Part II	1964

(5-0738) ED 010 563	Robert L. Egbert John F. Cogswell System Development Corp.	System Design for a Continuous Progress School Part III, The Instructional Materials Center	1964
(5-0738) ED 010 564	John F. Cogswell Donald G. Marsh System Development Corp.	System Design for a Continuous Progress School - Computer Simulation of Autonomous Scheduling Procedures	1966
(5-0738) ED 010 565	Jack E. Bratten System Development Corp.	The Organization of a Biology Course for Individual Progress at Theodore High School	1965
(5-0738) ED 010 566	J. E. Bratten System Development Corp.	The Organization of a Biology Course for Individual Progress at Theodore High School - Descriptive Analysis	1965
(5-0738) ED 010 567	Jack Bratten System Development Corp.	The Organization of a Course for Individual Progress at Theodore High School - System Analysis and Simulation	1966
(5-0738) ED 010 568	J. F. Cogswell System Development Corp.	Nova High School	1966
(5-0738) ED 010 569	J. F. Cogswell System Development Corp.	Nova High School - Description of Tenth Grade Social Studies Course	1966
(5-0738) ED 010 570	J. F. Cogswell System Development Corp.	Nova High School - System Analysis	1966
(5-0738) ED 010 571	R. L. Egbert System Development Corp.	Buena Vista High School - An Introduction	1966
(5-0738) ED 010 572	R. L. Egbert System Development Corp.	Buena Vista High School - Descriptive Analysis	1966
(5-0738) ED 010 573	Robert L. Egbert System Development Corp.	Buena Vista High School - Systems Analysis	

(5-0738) ED 010 574	Jack Bratten System Development Corp.	The Organization of Interrelated Individual Progress and Ability Level Courses in Mathematics at Garber High School - An Introduction	1966
(5-0738) ED 010 575	Jack Bratten System Development Corp.	The Organization of Interrelated Individual Progress and Ability Level Courses in Mathematics at Garber High - Descriptive Analysis	1966
(5-0738) ED 010 576	Jack Bratten System Development Corp.	The Organization of Interrelated Individual Progress and Ability Level Courses in Math at Garber High School - System Analysis and Simulation	1966
(5-0738) ED 010 577	John F. Cogswell System Development Corp.	Analysis of Instructional Systems - Report of a Project, New Solutions to Implementing Instructional Media through Analysis and Simulation of School Organization	1966
(5-0738) ED 010 578	Frank Yett System Development Corp.	Resource Allocation Processor for the School Simulation Vehicle Pilot Version	1964
(5-0738) ED 010 579	J. F. Cogswell System Development Corp.	A Computer Simulation Vehicle for Educational Systems	1965
(5-0738) ED 010 580	J. F. Cogswell System Development Corp.	New Solutions to Implementing Instructional Media through Analysis and Simulation of School Organization	1964
(5-0738) ED 010 581	John Cogswell System Development Corp.	Construction and Use of the School Simulation Vehicle	1964
(5-0738) ED 010 582	John Cogswell Donald Estauan System Development Corp.	Explorations in Computer-Assisted Counseling	1965
(CRP-1323)	Walter R. Turkes Univ. of Pittsburgh	Optional Scheduling in Educational Institutions	1963

(CRP-1948)	Richard L. Wing Board of Cooperative Educational Services, N.Y. State Educ. Dept. Westchester Co., N.Y.	Use of Technical Media for Simulating Environments to Provide Individualized Instruction	1965
(CRP-2234)	Quentin C. Stodola North Dakota State Univ.	Frequent Classroom Testing as a Learning Aid, Using Data Processing	1964
(CRP-2841) ED 014 227	Richard L. Wing Board of Cooperative Educational Services, N.Y. State Educ. Dept. Westchester Co., N.Y.	The Production and Evaluation of Three Computer-Based Economic Games for the Sixth Grade	1966
(CRP-2920) ED 010 850	John V. Yurkovich University of Wisconsin	Determination of Future Physical Facility Requirements for Institutions of Higher Education	1966
(CRP-3121)	Charles Spohn Ohio State University	A Diagnostic Testing Program with Appropriate Auto-instructional Treatments to Meet Individual Differences in Learning	1966
(CRP D-050) ED 010 618	Alvin Grossman California State Department of Education	Research and Development in Data Processing for Pupil Personnel and Curricular Services	1965
(CRP E-007)	Winthrop N. Francis Brown University	A Standard Sample of Present-Date English for Use with Digital Computers	1964
(CRP Z-013) ED 012 385	George C. McGregor Providence College	Computer Assisted Instruction for the Mentally Handicapped	1965
(5-0034) ED 010 293	Dwight W. Allen Stanford University	Flexibility for Vocational Education through Computer Scheduling	1966

(5-0223) ED 010 306	Raymond O. Collier University of Minnesota	Radomization Procedures for the Analysis of Experiments	1965
(5-1016) ED 010 546	Glenn McMurry University of Southern California, Los Angeles	Southern California Automated Cataloging Project	1966
(6-2040) ED 010 666	Francis Tuttle Oklahoma State Board of Vocational Education	Summer Institute to Train Data Processing Teachers for the New Oklahoma State-Wide Computer Science System Phase I	1966
ED 010 691	Raymond L. Johnson Herbert S. Gross American Institute for Research in Behavioral Sciences, Washington School of Psychiatry	Models of Meaning and the Analysis of Delusional Language	1966
ED 010 764	Commission on College Physics Ann Arbor, Michigan	The Computer in Physics Instruction, Report of the Conference on Uses of the Computer in Undergraduate Physics Instruction (Univ. of California, Irvine November 4-6, 1966)	1966
(BRC-PR-12) ED 010 873	Gary R. Martins Steven B. Smith Bunker-Ramo Corp., Calif.	Computer-Aided Research in Machine Translation D199, A Parsing Procedure for a Vecter Symbol Phrase Grammar of Russian	1965
(LACS-690) ED 010 949	John M. Howell Los Angeles City Schools California	A Feasibility Study in Efficient Instructional Use of Digital Computers	1964
ED 011 039	Robert E. Campbell and others Ohio State University	Systems under Development for Vocational Guidance, A Report of a Research Exchange Conference (OSU - August 18-19, 1966)	1966

ED 011 458	Richard A. Jones	Innovative Developments at Bakersfield College	1967
(5-0249) ED 011 605	Bill Lamkin Austin Public Schools	Organizing for Information Processing in the Austin Public Schools	1966
ED 011 650	Bernard Spolsky	Computer-Based Instruction and the Criteria for Pedagogical Grammars	1965
ED 011 672	Robert I. Havens	The Computer in Educational Research and Its Implications for the Counselor	1967
(SP-2545-002-00) ED 012 092	Harry F. Silberman System Development Corp., California	Using Computers in Education - Some Problems and Solutions	1966
ED 012 093	William J. Emerson and others American Association of School Administrators	EDP and the School Administrators	1967
(R-042467) ED 012 096	Roger L. Sisson Pennsylvania University	Some Results of a Simulation of an Urban School District	1967
ED 012 106	Martin I. Taft Harold Reisman	Towards Better Curricula through Computer Selected Sequencing of Subject Matter	1966
(R-64-29) ED 012 363	H. W. Case A. Roe Univ. of Calif., Los Angeles	Basic Properties of an Automated Teaching System	1964
(5-1214) ED 012 384	Robert R. Reynolds and others Providence College, R.I.	Report on Computer Assisted Instruction, Providence College, Providence, Rhode Island (October 17, 1965-June 30, 1966)	1966

ED 012 499	Philip J. Stone Educational Testing Service, Princeton, New Jersey	An Interactive Inquirer	1967
ED 012 500	Carl E. Helm Educational Testing Service	The Natural-Language Approach to Psychometrics	1967
(CIRC-A-168) ED 012 504	Dale E. Kaiser and others Illinois State Office of Superintendent of Public Instruction	Educational Data Processing in Illinois Public Schools	1965
(PS-TR-111) ED 012 688	Theodore S. Rodgers Stanford University	Linguistic Considerations in the Design of the Stanford Computer-Based Curriculum in Initial Reading	
ED 013 231	Anita Smith and others	Programing Teacher-Pupil Interaction Patterns	
(5-0842) ED 013 372	G. B. Strother and others University of Wisconsin	Educational Applications of Management Games	1966
(5-8212) ED 013 448	Joseph A. VanCampen	An Investigation of the Use of Digital Computers in the Creation of Programmed Language Instruction, with Particular Reference to Standard Ukranian and American English	1967
(ACT-RR-OCT-1966-NO-15) ED 013 488)	James M. Richards, Jr. American College Testing Program, Iowa City	Can Computers Write College Admissions Tests	1966
(P-3529) ED 013 491	E. S. Quade Rand Corporation	Cost-Effectiveness--Some Trends in Analysis	1967
ED 013 544	Juan E. Starellas	AVIRS and Technological Instruction--Experiences with the New Educational Revolution	1966

ED 013 704	Goerge D. Spache	Reading Technology	1966
(5-0684) ED 013 722	Duncan Hansen and others Stanford University	A Reading Curriculum for a Computer-Assisted Instructional System - The Stanford Project	1966
(5-0216) ED 013 978	Frank B. Baker University of Wisconsin	The Development of a Computer Model of the Concept Attainment Process	1966
ED 013 983	Robert Glazer Pittsburgh University	The Interface Between Student and Subject Matter	1966
ED 014 030	D. Wallis and others British Ministry of Defense, London	Programed Instruction in the British Armed Forces	1967
ED 014 110	Allan Ellis and others Harvard University	A Rudimentary Demonstration for the Information System for Vocational Decisions - Orientation, Guidance Scripts Test of Occupational Knowledge, and a Script Writing Language	1967
(UR-49-814) ED 014 115	Louis Spiegel University of Rochester	Computer Control of Behavioral Experiments	1967
(TM-L-3494) ED 014 219	Robert T. Filep Brian D. Murphey System Development Corp.	Computer-Assisted Learning for Inservice Teacher Education	1967
(6-0481) ED 014 226	Paul Nechtigal Boulder Valley Public Schools, Colorado	A Computerized Approach to the Individualizing of Instructional Experiences	
ED 014 255	H. J. Siliakus Australian Federation of Modern Language Teachers Associations	Computer-Aided Word Research	1967

ED 014 267	George P. Wolfe Richard L. Kohr Williamsport Area Community College, Pennsylvania	Experimental Program in Engineering and Design Data Processing Technology	1966
ED 014 288	David Broyles Riverside City College, Calif.	Computer Techniques for Weekly Multiple-Choice Testing	1966
(WSE-S-3076) ED 014 537	August L. Cibarich and others Wisconsin State Employment Service	A Large Life Insurance Company Automates - Workforce Implications of Computer Conversion	1964
(RPP-31-67) ED 014 644	Felix F. Kopstein Robert J. Siedel George Washington Univ.	Computer Administered Instruction Versus Traditionally Administered Instruction, Economics	1967
(SP-2576-001-01) ED 014 781	John F. Cogswell and others System Development Corp.	The Design of a Man-Machine Counseling System	1966
ED 014 831	Sensory Aids Evaluation Development Center Massachusetts Institute of Technology	Braille Research and Development Conference Proceedings - November 19, 1966	1966
ED 014 888	John W. Loughary	Man-Machine Systems in Education	1966
(TN-29) ED 014 890	Milton Chorvinsky National Center for Educational Statistics (DHEW)	A Discussion of Educational Technology with Emphasis on Computer-Assisted Instruction	1966
(P-3485) ED 015 000	William Way RAND Corporation	A Subject Heading Authority List - Computer Prepared - The SHAL Program	1966

(MSEE-67-09) ED 015 004	Phillippe J. Gabrini University of Pennsylvania	Automatic Introduction of Information into a Remote-Access System - A Physics Library Catalog	1966
ED 015 098	Gilbert Williams San Bernadino Valley College	The Use of the Computer for Testing, Programming and Instruction	1966
(6-1458) ED 015 230	Edward K. Hankin Florida State University	The Development of Pre-Vocational Education Literacy Courses for Use with Computer-Assisted Instruction of Disadvantaged Youth and Adults	1966
(PP-23-67) ED 015 359	William A. McClelland George Washington University	Training Research Utilizing Man-Computer Interactions, Promise and Reality	1967
ED 015 487	John W. Loughary	The Information Explosion and its Implications for the Counseling Function	1966
(TM-3) ED 015 494	Thomas E. Hutchinson Harvard University	Levels of Aspiration and Models Applicable to the Problems of Choice and Career	
(TN-45) ED 015 550	William K. Winters National Center for Educational Statistics (DHEW)	DYNAMOD II in a Time-Sharing Environment	1967
(5-0253) ED 015 680	C. A. Booker, Jr. and others University of Pittsburgh	Graphic Input Tablets for Programmed Instruction	1966
ED 015 761	Robert M. Curtice Lehigh University	Magnetic Tape and Disc File Organizations for Retrieval	1966
(MSEE-67-14) ED 015 767	Thomas C. Lowe University of Pennsylvania	Design Principles for an On-Line Information Retrieval System	1966
(OEO-522) ED 015 771	Walter J. Foley Iowa University	Follow-up Of Operation Head Start Participants in the State of Iowa	1967

ED 015 843	Robert Glaser William W. Ramage University of Pittsburgh	The Student-Machine Interface in Instruction	1967
ED 015 882	S. Hunker Alberta University	Training and Research Program in Computer Applications	1967
(5-0738) ED 016 262	Deloss D. Friesen System Development Corporation	The Validation of an Automated Counseling System	1965
(5-8410) ED 016 263	Milton D. Jacobson University of Virginia	The Use of the Computer to Generate Statistical Tables for the Study of Personality Traits	1967
ED 016 273	Tommy L. Roberts	The Uniqueness of the Individual	1968
(5-0216) ED 016 298	Frank B. Baker	The Internal Organization of Computer Models of Cognitive Behavior	1967
ED 016 302	John W. Hamblen Southern Regional Education Board, Atlanta	Computers in Higher Education - Expenditures, Sources of Funds and Utilization for Research and Instruction 1964-1965 with Projections for 1968-1969	1967
ED 016 396	Roy K. Wilson and others National School Public Relations Association Washington, D.C.	Technology in Education	1967
(5-0253) ED 016 398	Arthur F. Kaupe, Jr. Pittsburgh University	Operating Software for a Computer-Based Instruction System	1966
ED 016 405	William A. Rodgers Lawrence M. Ganglio Saginaw Township Community Schools, Michigan	Toward a Computer Based Instructional System	
ED 016 412	Charles R. Fall State University of New New York at Buffalo	Individualizing University Instruction, Exploring Computer Potential to Aid College Teachers by Directing the Learning Process	

(AD-649-335) ED 016 414	Albert E. Hickey John M. Newton ENTELEK, Inc.	Computer-Assisted Instruction, A Survey of the Literature	1967
(AD-645-654) ED 016 417	Gerald L. Engel Naval Weapons Lab, Dahlgren, Virginia	Computer-Assisted Instruction, A Selected Bibliography and KWIC Index	1967
(AD-289-817) ED 016 418	Charles S. Morrill and others MITRE Corp., Bedford, Mass.	Programmed Instruction - A Selected Bibliography	1962
ED 016 448	American Association of Junior Colleges, Wash., D.C.	Selected Papers from the Annual Convention of the American Association of Junior Colleges - February 28-March 4, 1966	1966
ED 016 453	Bernard J. Luskin Orange Coast College, Calif.	Educational Data Processing - A Curricular Analysis with the Orange Coast College Program in Perspective	1967
ED 016 483	John R. Clark Theodore Tilton Orange Coast College, Calif.	Comments and Curricula Related to Third Generation Data Processing and Specifically IBM System/360	1967
(AD-653-279) ED 016 503	Ronald R. Anderson Robert S. Taylor Lehigh University	Systems Manual for the Experimental Literature Collection and Reference Retrieval System of the Center for the Information Sciences	1967
ED 016 634 635	Commission on Engineering Education, Washington, D.C.	The Man Made World	1967
ED 016 978	E. N. Adams	Conversation with a Computer as a Technique of Language Instruction	1968
ED 017 007	Donald J. Veldman University of Texas	Computer-Based Sentence Completion Interviews	1967

ED 017 016	Tommy L. Roberts Franz J. Frederick Oklahoma State University	Computer Assisted Counseling	1967
ED 017 121	David S. Haviland Rensselaer Polytechnic Institute	The Computer and the Architectural Profession	1966
ED 017 145	Richard W. Judy Jack B. Levine Association of Universities and Colleges in Canada	A New Tool for Educational Administrators - Educational Efficiency through Simulation Analysis	1965
ED 017 156	Washington State Higher Education Facilities Commission	Higher Education Facilities Inventory Manual	1967
(6-2811) ED 017 170	Robert R. Reynolds Providence College	In-Service Training in Computer Assisted Instruction for Vocational Teachers	1966
ED 017 498	Edmund J. Farrell National Council of Teachers of English, Champaign, Ill.	English,Education, and the Electronic Revolution	1967
ED 017 816	James L. McKenney Harvard University	Simulation Gaming for Management Development	1967
ED 018 092	Judith Murphy Robert Sutter Educational Facilities Laboratories, Inc., N.Y	School Scheduling by Computer, The Story of GASP	1964

(5-1088) ED 018 158	Patrick Suppes Edward Crothers Stanford University	Application of Mathematical Learning Theory and Linguistics to Second Language Learning with Particular Reference to Russian	1967
ED 018 205	Duncan N. Hansen	Application of Computers to Research on Instruction	1966
ED 018 364	Connecticut State Department of Education	Computer Assisted Mathematics Instruction, Pilot Project	1966
(6-1489) ED 018 392	Roland F. Lescarbeau and others Hartford University	A Suggested Curriculum Guide for Electro-Mechanical Technology Oriented Specifically to the Computer and Business Machine Fields	1968
ED 018 662	Miami-Dade Junior College	Programming Exercises for Computer Aided Drafting	1967

APPENDIX D

Regional Educational Laboratories and Computer Activities

> The Regional Laboratories which are supported by the U.S. Office of Education are designed to bridge the gap between educational research and educational practice. They have their own governing boards and staffs, develop their own policies and direction, and have established their own interlaboratory coordination mechanism.

REGIONAL EDUCATIONAL LABORATORIES

Appalachia Educational Laboratory (AEL)
1414 Kanawha Boulevard
Charleston, West Virginia 25325

Major program interests: To help rurally isolated school districts upgrade the quality of education through the establishment of "educational cooperatives" so the districts may share technical equipment, mobile facilities, and other resources.

Center for Urban Education (CUE)
105 Madison Avenue
New York, New York 10016

Major program interests: To improve educational practice in northern metropolitan school systems through programs that insure literacy in the early grades, promote teacher competence and morale, and assist schools to integrate their facilities and use mass media more effectively.

Central Atlantic Regional Educational Laboratory (CAREL)
1200 17th Street, N. W.
Washington, D. C. 20036

Major program interests: To develop an arts and humanities curriculum for children 3 to 8 in art, music, drama, dance, and literature.

Central Midwestern Regional Educational Laboratory (CEMREL)
10646 St. Charles Rock Road
St. Ann, Missouri 63074

Major program interests: To develop curricula in mathematics and aesthetics for students in grades K-12; to demonstrate computer assisted instruction for rural schools; to design teaching strategies for use with special student populations; to develop computer applications to serve educators in regional and state school planning, administration, and instruction.

Cooperative Educational Research Laboratory, Inc. (CERLI)
540 West Frontage Road
Northfield, Illinois 60093

Major program interests: To help speed tested innovation in schools by creating and introducing into schools two new roles for school personnel: leader of continuing education and evaluator.

Eastern Regional Institute for Education (ERIE)
635 James Street
Syracuse, New York 13203

Major program interests: To develop a model of individualized instruction in which the total resources of a school are harnessed to support the program; to design a system for installing and monitoring a new curriculum in schools of diverse characteristics.

Education Development Center (EDC)
55 Chapel Street
Newton, Massachusetts 02160

Major program interests: To develop programs designed to help specific communities to improve the quality of their schools, including the establishment of resource teams which can help each community in such areas as curriculum development, pre- and in-service training of teachers, and community attitudes.

Far West Laboratory for Educational Research and Development (FWLERD)
Claremont Hotel, 1 Garden Circle
Berkeley, California 94705

Major program interests: To improve the instructional skills of experienced teachers by developing self-instructional course packages based on microteaching techniques; to improve the means by which school personnel are informed about tested alternatives in dealing with educational problems.

Michigan-Ohio Regional Educational Laboratory (MOREL)
3750 Woodward Avenue, Room 1408
Detroit, Michigan 48201

Major program interests: To develop a program for training experienced teachers to engage in continued analysis and improvement of their own behavior.

Mid-Continent Regional Educational Laboratory (McREL)
104 East Independence Avenue
Kansas City, Missouri 64108

Major program interests: To develop self-directed learning among a general student population, emphasizing the development of programs to train teachers in skills which foster self-directed learning in students.

Northwest Regional Educational Laboratory (NWREL)
400 Lindsay Building
710 Southwest Second Avenue
Portland, Oregon 97204

Major program interests: To develop strategies for training instructional leaders to instruct other professionals in the use of innovative and promising instructional practices; to improve the quality of instruction in small rural schools by developing individualized course materials and guidance programs; to aid agencies concerned with educating culturally different children by developing model school programs.

Regional Education Laboratory for the Carolinas and Virginia (RELCV)
Mutual Plaza
Durham, North Carolina 27701

Major program interests: To improve higher education in the Carolinas and Virginia by training personnel to apply institutional research and planning processes within colleges and universities; to select and install new educational materials and methods developed across the country in the elementary and secondary schools of the three States.

Research for Better Schools, Inc. (RBS)
121 South Broad Street
Philadelphia, Pennsylvania 19107

Major program interests: To field test and further develop a system of Individually Prescribed Instruction; to develop "research implementation" personnel to assist school administrators in identifying and solving educational problems.

Rocky Mountain Educational Laboratory (RMEL)
1620 Reservoir Road
Greeley, Colorado 80631

Major program interests: To develop programs that enable elementary schools to diagnose individual learning disabilities and to prescribe materials and methods that help children overcome such disabilities; to develop occupational education programs.

South Central Region Educational Laboratory (SCREL)

302 National Old Line Building
Little Rock, Arkansas 72201

Major program interests: To develop early childhood compensatory education programs in basic skills and self-concept for three populations of rural poverty-the off-reservation Indian, the Delta Negro, and the white Ozarkian.

Southeastern Education Laboratory (SEL)

3450 International Boulevard
Hapeville, Georgia 30054

Major program interests: To improve communication skills among educationally disadvantaged whites and Negroes in rural and urban schools; to improve interpersonal relations in disadvantaged schools between teachers, between students, and between teachers and students.

Southwest Educational Development Laboratory (SEDL)

800 Brazos Street
Austin, Texas 78767

Major program interests: To develop programs in which the teacher, the instructional program, materials and activities are structured to meet the unique needs of Mexican-Americans, Negroes, and French Acadians; to develop applications of comptuer technology which meet the management needs of individual schools and the instructional needs of individual students.

Southwest Regional Laboratory for Educational Research and Development (SWRL)

11300 LaCienega Boulevard
Inglewood, California 90304

Major program interests: To develop a coordinated primary grade curriculum that includes communication skills, problem solving, and humanities elements; to develop a computer-managed instruction system to aid the teacher, and a computer-based planning system to assist the school administrator in decision-making; to develop instructional materials to train school personnel who use SWRL-developed products.

Southwestern Cooperative Educational Laboratory (SWCEL)

117 Richmond Drive, NE.
Albuquerque, New Mexico 87106

Major program interests: To develop an improved first year school experience in the language arts with initial emphasis on oral language for Mexican-American and Indian children.

Upper Midwest Regional Educational Laboratory (UMREL)

1640 East 78th Street
Minneapolis, Minnesota 55423

Major program interests: To develop new methods of teacher training which will improve teacher competency; to develop inservice programs to prepare school staffs to work more effectively with new curriculum and changing patterns of school organization.

REGIONAL EDUCATIONAL LABORATORIES

Computer Projects

Northwest Regional Educational Laboratory (NWREL)

Relevant Educational Application of Computer Technology
Edward Seger FY'68 $170,000 FY'69 $170,000

Planning a computer utility system to serve a cluster of schools and colleges. It plans to have close relationships with the CUES project supported by the Division of Comprehensive and Vocational Education Research of the Office of Education. It is entitled "Relevant Educational Application of Computer Technology" (REACT).

Research for Better Schools, Inc. (RBS)

Development of CAI and CMI Applications for the IPI Curriculum
Gilbert Boyer FY'69 $128,000

Developing a comprehensive instructional management system to support their IPI program. Developing cooperatively with Westinghouse and Philco Ford programs to develop CAI and CMI applications for IPI curriculum.

Regional Educational Laboratory for the Carolinas and Virginia (RELCV)

Computerized Information Systems FY'68 $80,000 FY'69 $131,000

Proposes to serve as a catalyst for developing a means for colleges throughout the 3-State region to utilize the computing power of TUCC. It is working cooperatively with South Carolina, North Carolina and Virginia to assist in the development of state-wide plans for utilization of computers in higher education. It is also trying to adapt GEMS system from OTIS for use by colleges and universities in the region.

Southwest Educational Development Laboratory (SEDL)

Field Testing CAI Applications and Development of Other Computer Applications in Elementary and Secondary Schools
Joseph Ward FY'68 $156,768

Working cooperatively with the University of Texas CAI Center and the State Education Agency to field test CAI and other computer applications in elementary and secondary education.

Has developed a student scheduling program that has been adapted by the Texas Service Center in San Antonio.

Appalachia Educational Laboratory (AEL)

Planning the Use of a Mobile CAI System for In-Service Training of Teachers in Math
William Bost   proposed FY'69 $81,610

Interested in installing an IBM 1500 system in a mobile van to provide an in-service CAI math program for teachers.

Central Midwest Regional Educational Laboratory (CEMREL)

Herbert Olhman   FY'68 $200,000   FY'69 $200,000

Planning the development of Computer Managed Instructional Systems as part of the mathematics and aesthetic education curriculums being developed by the Laboratories.

Southwest Regional Laboratory for Educational Research and Development (SWRL)

Development of an Instructional Management System
Development of a Computerized School Planning System
Richard Schutz   FY'67 $345,000   FY'68 $407,000   FY'69 $625,000

Developing a real-time student monitoring system to aid teachers in individualized instruction. Developing a (school) administrative information system.

Southeastern Educational Laboratory (SEL)

FY'68 $25,000   FY'69 nothing

Did a feasibility study to develop a plan for a CAI program. No computer-related activities being funded in FY'69.

APPENDIX E

Research and Development Centers; ERIC Clearinghouses

RESEARCH AND DEVELOPMENT CENTERS

The names and address of the Research and Development Centers are given below; the first nine are supported by the Cooperative Research Program, the two others under the provision of the Vocational Education Act.

Learning Research and Development Center
208 M.I. Building
University of Pittsburgh
Pittsburgh, Pennsylvania 15213

Center for the Advanced Study of Educational Administration
147B Hendricks Hall
University of Oregon
Eugene, Oregon 97403

Wisconsin Center for Research and Development for Cognitive Learning
The University of Wisconsin
1404 Regent Street
Madison, Wisconsin 53705

Research and Development Center in Educational Stimulation
Fain Hall
University of Georgia
Athens, Georgia 30601

Research and Development Center in Teacher Education
303 Sutton Hall
University of Texas
Austin, Texas 78712

Stanford Center for Research and Development in Teaching
Stanford University
770 Welch Road
Palo Alto, California 94304

Center for Research and Development in Higher Education
University of California
4606 Tolmen Hall
Berkeley, California 94720

Center for the Study of the Evaluation of Instructional Programs
145 Moore Hall
405 Hilgard Avenue
Los Angeles, California 90024

Center for the Study of Social Organization of Schools
The Johns Hopkins University
3505 North Charles Street
Baltimore, Maryland 21218

Center for Research, Development, and Training in Occupational Education
North Carolina State University
Raleigh, North Carolina 27607

Center for Research and Leadership Development in Vocational and Technical Education
980 Kenny Road
Ohio State University
Columbus, Ohio 43210

ERIC CLEARINGHOUSES

The network of ERIC Clearinghouses/and their locations is given below, with subject areas shown--

ADULT EDUCATION
Syracuse University
107 Roney Lane
Syracuse, New York 13210

COUNSELING AND PERSONNEL SERVICES
611 Church Street
Ann Arbor, Michigan 48104

DISADVANTAGED
Teachers College
Columbia University
New York, New York 10027

EARLY CHILDHOOD EDUCATION
University of Illinois
805 West Pennsylvania Avenue
Urbana, Illinois 61801

EDUCATIONAL ADMINISTRATION
University of Oregon
Eugene, Oregon 97403

EDUCATIONAL FACILITIES
University of Wisconsin
606 State Street
Madison, Wisconsin 53703

EDUCATIONAL MEDIA AND TECHNOLOGY
Institute for Communication Research
Stanford University
Stanford, California 94305

EXCEPTIONAL CHILDREN
The Council for Exceptional Children
1201 16th Street, NW.
Washington, D.C. 20036

HIGHER EDUCATION
George Washington University
2029 G Street, NW.
Washington, D.C. 20006

JUNIOR COLLEGES
University of California at Los Angeles
405 Hilgard Avenue
Los Angeles, California 90024

LIBRARY AND INFORMATION SCIENCES
University of Minnesota
2122 Riverside Avenue
Minneapolis, Minnesota 55404

LINGUISTICS
Center for Applied Linguistics
1717 Massachusetts Avenue, NW.
Washington, D.C. 20036

READING
Iniana University
200 Pine Hall
Bloomington, Indiana 47401

RURAL EDUCATION AND SMALL SCHOOLS
Box AP, University Park Branch
New Mexico State University
Las Cruces, New Mexico 88001

SCIENCE EDUCATION
Ohio State University
1460 West Lane Avenue
Columbus, Ohio 43221

TEACHER EDUCATION
1156 16th Street, NW.
Washington, D.C. 20036

TEACHING OF ENGLISH
National Council of Teachers of English
508 South Sixth Street
Champaign, Illinois 61820

TEACHING OF FOREIGN LANGUAGES
Modern Language Association of America
62 Fifth Avenue
New York, New York 10011

VOCATIONAL AND TECHNICAL EDUCATION
Ohio State University
980 Kenny Road
Columbus, Ohio 43210

APPENDIX F

Abstracts of ESEA Title III Projects Involving Use of Computers (FY 1966, FY 1967 and FY 1968 Approved as of September 20, 1968)

P A C E

Projects to Advance Creativity in Education

USE OF COMPUTERS IN PACE PROJECTS FOR INSTRUCTION, ADMINISTRATION, AND GUIDANCE AND COUNSELING

SR-68-2 PROJECTS FUNDED IN FY 1966, FY 1967, AND FY 1968

Prepared by

Supplementary Centers and Services, Title III
of the Elementary and Secondary Education Act
of 1965
(Division of Plans and Supplementary Centers, BESE, USOE)

ESEA TITLE III PROJECTS INVOLVING USE OF DATA PROCESSING SYSTEM

As of September 20, 1968, there are 155 approved PACE computer projects costing $22,271,778. The majority of these computer projects involve the use of computers for school administration, student programing, guidance, counseling, and testing, and classroom instruction in programing and computer technology.

PACE Projects Involving Data Processing

	Number	Amount
Planning Projects	67	$ 4,472,308
Operational Projects	88	17,799,470
	155	$22,271,778

The projects in this appendix are divided into 2 sections -- Use of Computers for Instruction, and Use of Computers for Administration and Guidance and Counseling. These sections are subdivided into the Fiscal Years 1966, 1967 and 1968. The OE number of each project is a number internal to the Office of Education. The school system involved and the person to contact for further information is included. The projects are also indexed according to State, project number and page.

ESEA TITLE III PROJECTS INVOLVING USE OF DATA PROCESSING SYSTEM
FY 1966, FY 1967 and FY 1968

States	Total		Planning Projects		Operational Projects	
	Number	Amount	Number	Amount	Number	Amount
U.S. TOTAL	155	$22,271,778	67	$4,472,308	88	$17,799,470
Alabama	3	182,610	2	79,485	1	103,125
Alaska	0	0	0	0	0	0
Arizona	0	0	0	0	0	0
Arkansas	0	0	0	0	0	0
California	14	1,808,359	6	529,518	8	1,278,841
Colorado	6	290,871	4	172,936	2	117,935
Connecticut	7	566,498	6	393,501	1	172,997
Delaware	3	396,690	1	19,200	2	377,490
District of Columbia	1	49,235	0	0	1	49,235
Florida	4	990,199	0	0	4	990,199
Georgia	1	59,647	1	59,647	0	0
Hawaii	1	85,150	1	85,150	0	0
Idaho	2	145,000	1	25,000	1	120,000
Illinois	5	1,291,480	2	168,186	3	1,123,294
Indiana	1	21,242	0	0	1	21,242
Iowa	3	706,904	0	0	3	706,904
Kansas	0	0	0	0	0	0
Kentucky	1	274,195	0	0	1	274,195
Louisiana	5	764,719	2	69,028	3	695,691
Maine	0	0	0	0	0	0
Maryland	3	631,232	0	0	3	631,232
Massachusetts	5	418,653	2	45,250	3	373,403
Michigan	5	1,400,617	1	26,744	4	1,373,873
Minnesota	5	801,816	3	151,988	2	649,828
Mississippi	4	562,385	1	39,970	3	522,415
Missouri	3	548,837	1	39,800	2	509,037
Montana	0	0	0	0	0	0
Nebraska	3	413,825	0	0	3	413,825
Nevada	1	62,965	0	0	1	62,965

ESEA TITLE III PROJECTS INVOLVING USE OF DATA PROCESSING SYSTEM (CONTINUED)
FY 1966, FY 1967, and FY 1968

States	Total		Planning Projects		Operational Projects	
	Number	Amount	Number	Amount	Number	Amount
New Hampshire	1	$ 31,400	1	$ 31,400	0	$ 0
New Jersey	2	144,731	1	50,535	1	94,196
New Mexico	2	370,863	0	0	2	370,863
New York	16	2,335,404	6	811,453	10	1,523,951
North Carolina	1	169,308	0	0	1	169,308
North Dakota	0	0	0	0	0	0
Ohio	7	631,806	6	418,816	1	212,990
Oklahoma	1	50,000	1	50,000	0	0
Oregon	7	592,752	4	97,192	3	495,560
Pennsylvania	12	2,440,896	7	796,969	5	1,643,927
Rhode Island	1	29,040	1	29,040	0	0
South Carolina	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0
Tennessee	0	0	0	0	0	0
Texas	8	1,618,192	3	235,313	5	1,382,879
Utah	1	420,475	0	0	1	420,475
Vermont	1	24,502	1	24,502	0	0
Virginia	2	459,885	0	0	2	459,885
Washington	0	0	0	0	0	0
West Virginia	0	0	0	0	0	0
Wisconsin	5	461,067	1	11,100	4	449,967
Wyoming	2	18,328	1	10,585	1	7,743
Guam	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0
Virgin Islands	0	0	0	0	0	0
Am Samoa	0	0	0	0	0	0
Trust T.O.P.	0	0	0	0	0	0
DOD	0	0	0	0	0	0
BIA	0	0	0	0	0	0

ESEA TITLE III PROJECTS INVOLVING USE OF DATA PROCESSING SYSTEM FOR INSTRUCTIONAL PURPOSES FY 1966, FY 1967, and FY 1968

States	Total		Planning Projects		Operational Projects	
	Number	Amount	Number	Amount	Number	Amount
U.S. TOTAL	69	$10,896,654	22	$ 1,726,934	47	$ 9,169,720
Alabama	0	0	0	0	0	0
Alaska	0	0	0	0	0	0
Arizona	0	0	0	0	0	0
Arkansas	0	0	0	0	0	0
California	7	803,065	3	134,485	4	668,580
Colorado	4	142,334	3	75,196	1	67,138
Connecticut	4	408,938	3	235,941	1	172,997
Delaware	2	377,490	0	0	2	377,490
District of Columbia	0	0	0	0	0	0
Florida	2	243,708	0	0	2	243,708
Georgia	0	0	0	0	0	0
Hawaii	1	85,150	1	85,150	0	0
Idaho	0	0	0	0	0	0
Illinois	1	46,000	1	46,000	0	0
Indiana	1	21,242	0	0	1	21,242
Iowa	1	199,990	0	0	1	199,990
Kansas	0	0	0	0	0	0
Kentucky	1	274,195	0	0	1	274,195
Louisiana	2	597,161	0	0	2	597,161
Maine	0	0	0	0	0	0
Maryland	2	593,656	0	0	2	593,656
Massachusetts	2	189,762	0	0	2	189,762
Michigan	3	801,380	1	26,744	2	774,636
Minnesota	3	706,053	1	56,225	2	649,828
Mississippi	1	333,823	0	0	1	333,823
Missouri	2	348,837	2	348,837	0	0
Montana	0	0	0	0	0	0
Nebraska	2	317,279	0	0	2	317,279
Nevada	1	62,965	0	0	1	62,965

ESEA TITLE III PROJECTS INVOLVING USE OF DATA PROCESSING SYSTEM FOR INSTRUCTIONAL PURPOSES FY 1966, FY 1967, and FY 1968

States	Total		Planning Projects		Operational Projects	
	Number	Amount	Number	Amount	Number	Amount
New Hampshire	0	0	0	0	0	0
New Jersey	1	94,196	0	0	1	94,196
New Mexico	1	71,363	0	0	1	71,363
New York	6	1,047,153	1	14,200	5	1,032,953
North Carolina	1	169,308	0	0	1	169,308
North Dakota	0	0	0	0	0	0
Ohio	3	355,420	2	142,430	1	212,990
Oklahoma	0	0	0	0	0	0
Oregon	3	271,684	1	26,124	2	245,560
Pennsylvania	5	1,087,523	1	500,000	4	587,523
Rhode Island	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0
Tennessee	0	0	0	0	0	0
Texas	1	139,865	0	0	1	139,865
Utah	1	420,475	0	0	1	420,475
Vermont	1	24,502	1	24,502	0	0
Virginia	1	347,709	0	0	1	347,709
Washington	0	0	0	0	0	0
West Virginia	0	0	0	0	0	0
Wisconsin	3	314,428	1	11,100	2	303,328
Wyoming	0	0	0	0	0	0
Guam	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0
Virgin Islands	0	0	0	0	0	0
American Samoa	0	0	0	0	0	0
Trust T. O. P.	0	0	0	0	0	0
DOD	0	0	0	0	0	0
BIA	0	0	0	0	0	0

ESEA TITLE III PROJECTS INVOLVING USE OF DATA PROCESSING SYSTEM FOR ADMINISTRATIVE AND GUIDANCE PURPOSES FY 1966, 1967, and 1968

States	Total		Planning Projects		Operational Projects	
	Number	Amount	Number	Amount	Number	Amount
U.S. TOTAL	86	$11,375,124	46	$3,054,411	40	$8,320,713
Alabama	3	182,610	2	79,485	1	103,125
Alaska	0	0	0	0	0	0
Arizona	0	0	0	0	0	0
Arkansas	0	0	0	0	0	0
California	7	1,005,294	3	395,033	4	610,261
Colorado	2	148,537	1	97,740	1	50,797
Connecticut	3	157,560	3	157,560	0	0
Delaware	1	19,200	1	19,200	0	0
District of Columbia	1	49,235	0	0	1	49,235
Florida	2	746,491	0	0	2	746,491
Georgia	1	59,647	1	59,647	0	0
Hawaii	0	0	0	0	0	0
Idaho	2	145,000	1	25,000	1	120,000
Illinois	4	1,245,480	1	122,186	3	1,123,294
Indiana	0	0	0	0	0	0
Iowa	2	506,914	0	0	2	506,914
Kansas	0	0	0	0	0	0
Kentucky	0	0	0	0	0	0
Louisiana	3	167,558	2	69,028	1	98,530
Maine	0	0	0	0	0	0
Maryland	1	37,576	0	0	1	37,576
Massachusetts	3	228,891	2	45,250	1	183,641
Michigan	2	599,237	0	0	2	599,237
Minnesota	2	95,763	2	95,763	0	0
Mississippi	3	228,562	1	39,970	2	188,592
Missouri	1	200,000	0	0	1	200,000
Montana	0	0	0	0	0	0
Nebraska	1	96,546	0	0	1	96,546
Nevada	0	0	0	0	0	0

ESEA TITLE III PROJECTS INVOLVING USE OF DATA PROCESSING SYSTEM (CONTINUED) FOR ADMINISTRATIVE AND GUIDANCE PURPOSES FY 1966, 1967, and 1968

States	Total		Planning Projects		Operational Projects	
	Number	Amount	Number	Amount	Number	Amount
New Hampshire	1	$ 31,400	1	$ 31,400	0	0
New Jersey	1	50,535	1	50,535	0	0
New Mexico	1	299,500	0	0	1	299,500
New York	10	1,288,251	5	797,253	5	490,998
North Carolina	0	0	0	0	0	0
North Dakota	0	0	0	0	0	0
Ohio	4	276,386	4	276,386	0	0
Oklahoma	1	50,000	1	50,000	0	0
Oregon	4	321,068	3	71,068	1	250,000
Pennsylvania	7	1,353,373	6	296,969	1	1,056,404
Rhode Island	1	29,040	1	29,040	0	0
South Carolina	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0
Tennessee	0	0	0	0	0	0
Texas	7	1,478,327	3	235,313	4	1,243,014
Utah	0	0	0	0	0	0
Vermont	0	0	0	0	0	0
Virginia	1	112,176	0	0	1	112,176
Washington	0	0	0	0	0	0
West Virginia	0	0	0	0	0	0
Wisconsin	2	146,639	0	0	2	146,639
Wyoming	2	18,328	1	10,585	1	7,743
Guam	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0
Virgin Islands	0	0	0	0	0	0
American Samoa	0	0	0	0	0	0
Trust T. O. P.	0	0	0	0	0	0
DOD	0	0	0	0	0	0
BIA	0	0	0	0	0	0

ESEA TITLE III PROJECTS INVOLVING USE OF DATA PROCESSING SYSTEM
FY 1966, FY 1967 and
FY 1968

State	Project Number	Page
Alabama	858	190
Alabama	2337	194
Alabama	4703-7	201
California	262	183
California	507	187
California	711	189
California	1150	158
California	1479	191
California	1645	160
California	1701	193
California	2631	161
California	2710	162
California	4161	199
California	4391	200
California	5083	171
California	5752	174
California	6677	177
Colorado	399	157
Colorado	481	157
Colorado	3253	164
Colorado	3279	164
Colorado	5168	202
Colorado	5538	703
Connecticut	136	155
Connecticut	146	181
Connecticut	954	158
Connecticut	995	158
Connecticut	2963	163
Connecticut	5282	203
Connecticut	6107	207
Delaware	1253	191
Delaware	3567	166
Delaware	5153	172
District of Columbia	2879	195
Florida	4355	199
Florida	6004	175
Florida	6139	207
Florida	6399	176
Georgia	5795	205
Hawaii	4462	170

State	Project Number	Page
Idaho	4568-7	201
Idaho	6040	206
Illinois	189	155
Illinois	1665	192
Illinois	2072	193
Illinois	3530	197
Illinois	5546	204
Indiana	1820	160
Iowa	1557	192
Iowa	1880	193
Iowa	2000	161
Kentucky	5648	174
Louisiana	852	189
Louisiana	3765	198
Louisiana	3834	167
Louisiana	5195	172
Louisiana	6042	206
Maryland	4342	169
Maryland	5147	172
Maryland	6257	208
Massachusetts	1819	193
Massachusetts	3688	167
Massachusetts	5208	202
Massachusetts	5760	205
Massachusetts	5762	174
Michigan	2524	163
Michigan	4241	199
Michigan	4301	169
Michigan	4475	200
Michigan	5353	173
Minnesota	239	156
Minnesota	546	188
Minnesota	1129	190
Minnesota	3987	168
Minnesota	6499	176
Mississippi	173	182
Mississippi	1653	192
Mississippi	3527	197
Mississippi	4721	170
Missouri	2293	161
Missouri	5103	171
Missouri	5810	205

State	Project Number	Page
Nebraska	3593	198
Nebraska	3719	167
Nebraska	3971	168
Nevada	1535	160
New Hampshire	505	186
New Jersey	924	190
New Jersey	5336	173
New Mexico	48	172
New Mexico	3592	166
New York	172	181
New York	180	182
New York	190	183
New York	326	184
New York	461	186
New York	1146	191
New York	1454	159
New York	1480	159
New York	1494	159
New York	1528	159
New York	2475	194
New York	2947	163
New York	3362	165
New York	6141	207
New York	6306	208
New York	6326	209
North Carolina	6379	175
Ohio	18	179
Ohio	3210	195
Ohio	3675	166
Ohio	4053	168
Ohio	4512-7	201
Ohio	5696	198
Ohio	6700	177
Oklahoma	5685	204
Oregon	601	188
Oregon	1191	158
Oregon	1579	192
Oregon	1700	192
Oregon	4213	169
Oregon	4286	169
Oregon	5233	202

State	Project Number	Page
Pennsylvania	84	180
Pennsylvania	262	156
Pennsylvania	366	185
Pennsylvania	533	187
Pennsylvania	950	190
Pennsylvania	1148	191
Pennsylvania	1324	158
Pennsylvania	1970	161
Pennsylvania	3518	165
Pennsylvania	4386	200
Pennsylvania	5387	203
Pennsylvania	5523	173
Rhode Island	406	185
Texas	86	180
Texas	343	184
Texas	3299	196
Texas	3550	197
Texas	5102	171
Texas	6643	209
Texas	6707	210
Utah	3068	164
Vermont	2173	161
Virginia	1810	160
Virginia	6435	209
Wisconsin	800	157
Wisconsin	3228	196
Wisconsin	3353	165
Wisconsin	5666	204
Wisconsin	6749	178
Wyoming	2813	195
Wyoming	6687	210

SHORELINE INSTRUCTIONAL MULTI-MEDIA CENTER.
Board of Education of Old Saybrook, Old Saybrook
OE No. 66-136 Planning Project Terminated
Amount sought - $80,641

An instructional materials and cultural center is to be planned to provide such services as educational television, computer-assisted instruction, and microfilming. Planning is to include: cooperative efforts of autonomous school systems; preparation of small rural suburban communities for the influx of relocated culturally deprived groups; development of an effective survey tool for schools of 3,000 or fewer pupils; cooperation between public and nonpublic schools; evaluation and use of modern technical aids by the schools of small communities; opportunities for students to master technical office and production machines not available in the schools; development of the multi-media center to serve a large area; and use of educational research results in classroom practice. Number of persons to be served: 84,700.

Further information: Lawrence Reney, Board of Education of Old Saybrook, 12-24 Sheffield Street, Old Saybrook, Connecticut 06475. (203) 388-3409

A COOPERATIVE PROJECT AMONG TEACHERS, SCHOOLS, AND INDUSTRY FOR CONTINUED DEVELOPMENT OF MEANS TO IMPROVE LEARNING.
Oak Park and River Forest High School, District No. 200, Cook County, Illinois, Oak Park
OE No. 66-189 Planning Project Terminated
Amount sought - $46,000

A pilot program made possible by a grant from the Knapp Foundation will be continued. It leads to establishing an Instructional Resource Center in a library that stores much information electronically and retrieves it instantly for the benefit of individuals and small groups at a cost permitting schools to develop centers of their own. In a small, electronically equipped carrel, the student will dial a coded number. The material he seeks will appear on a screen as a still picture of pages from books, photographs, maps, charts, tables, graphs, or documents, or films or videotapes with sound, or will be heard as produced by tapes with sound only. The equipment needed to make such a center a reality already exists but never has been brought together to serve education. This project will make possible the crucial step of preparing teachers in the skills needed to make their own audio-visual materials for storage in the center. Master teachers working in the pilot program will be given released time and provided with an experimental workshop where they can develop, create, and preview materials under the guidance of technicians and consultants. The number of persons to be served is estimated at 20,000.

Further information: Lura E. Crawford, Head Librarian, Oak Park-River Forest High School, East Avenue and Ontario Street, Oak Park, Illinois.

COORDINATED DATA PROCESSING SERVICE AND FACILITY.

Suburban School Service Joint Board, Edina

OE No. 66-239 Planning Project Terminated

Amount sought - $56,225

The facility to be planned would coordinate the development of data processing services to the schools; provide a system for information storage and retrieval; offer inservice training for school personnel; and undertake the research and development of computer applications in educational management and instruction. Planners are to consider developing an exemplary coordinated total educational information system to support instructional programs in the schools; using supportive data services to improve guidance and counseling programs; and making available equipment and personnel for the development of pilot programs in the instructional use of computers. To be developed in coordination with the State Department of Education, the center may become the first stage in the establishment of a statewide educational information system. Number of persons to be served: 325,000 pupils and 16,000 professional staff members.

Further information: Willis F. Shaw, Treasurer, 5701 Normandale Road, Edina, Minnesota 55424. (612) 927-9721

PLANNING FOR INNOVATION.

School District of Philadelphia, Philadelphia

OE No. 66-262 Planning Project Terminated

Amount sought - $500,000

Focusing initially on the education of disadvantaged and underdeveloped youngsters, a long-range Plan of Innovation will be developed for continued educational program improvement within the District. The schools' linkages to family, neighborhood, and community institutions will be examined and strengthened, taking into account the "community school" concept of neighborhood involvement, full use of community resources particularly in remedial-therapeutic programs, and cooperative efforts with nonpublic school systems. Program, staff, and organization within the schools will be reviewed and extended, including individualized education through nongrading and the "magnet school" concept in which differentiated, integrated education is available on the basis of need and interest; organizing with institutions of higher learning for continuing education programs; possible roles for teacher's aides, other nonprofessional personnel and volunteers; testing new educational technology such as the computer as an instructional vehicle; and a 7-4-4 program of school organization. The plan will incorporate several ESEA titles--a mass effect under Title I, demonstrations of innovative approaches under Title III, and research support under Title IV. The population of the City of Philadelphia is 2,044,000 persons.

Further information: Dr. C. Taylor Whittier, Superintendent of Schools, Parkway at 21st Street, Philadelphia, Pennsylvania 19103. (215) LO 4-3400 Ext. 222

A COMPUTERIZED APPROACH TO THE INDIVIDUALIZING OF INSTRUCTIONAL EXPERIENCES.
Boulder Valley School District No. Re-2, Boulder
OE No. 66-399 Planning Project Terminated
Amount sought - $26,920, fiscal year '67

Part II. A continuation of Part I above, the program is to consist of completion of preplanning, collection of input data on the three groups of students, coding of information for punch cards, preparation of a program for computer analysis, continuation of teacher workshops, consultation with specialists, a trial run of the system, and completion of planning in order to begin operation in the fall of 1967.

Further information: Richard M. Fawley, Director; Curriculum Research and Statistical Analysis; P.O. Box 186, Boulder, Colorado. (303) 442-6931 Ext. 45

A COMPUTERIZED APPROACH TO THE INDIVIDUALIZING OF INSTRUCTIONAL EXPERIENCES.
Boulder Valley School District No. Re-2, Boulder
OE No. 66-481 Planning Project Terminated
Amount sought - $20,910

Part I. Based on information about individual characteristics of the students, the use of computer facilities is to be planned to help teachers design more effective instructional experiences for three broad groups of students--the academically able, the middle range, and potential dropouts--in Kindergarten through Grade 12. The kinds of input data such as educational objectives, student characteristics, and instructional designs are to be determined. Inservice workshops are to be set up for teachers, and a complete design for evaluating the program is to be developed. Estimated number of persons to be served: 1,300 students.

Further information: Richard M. Fawley, Director; Curriculum Research and Statistical Analysis; P.O. Box 186, Boulder, Colorado. (303) 442-6931 Ext. 45

DATA PROCESSING INSTRUCTION CENTER.
School District No. 5, City of Franklin, Franklin
OE No. 66-800 Planning Project Terminated
Amount sought - $11,100

A center will be planned in a comprehensive high school to teach automatic data processing and its application to mathematics, science, and business. Emphasis will be on student use, with the possibility of future utilization on a districtwide basis.

Further information: H. E. Guzniczak, Superintendent, P.O. Box 245, Franklin, Wisconsin 53131. (414) 425-2554

REGIONAL INSTRUCTIONAL COMPUTER CENTER.

Hamden, Connecticut, Board of Education, Hamden
OE No. 66-954 Planning Project Terminated
Amount sought - $33,000

The fiscal, administrative, and training requirements of a data center for instruction and guidance will be explored by nine school districts.

Further information: Richard Bigelow, Mathematics Instructor, Hamden High School, Hamden, Connecticut. (203) 248-2134

A PROPOSAL FOR PLANNING A METROPOLITAN EFFORT TOWARD REGIONAL OPPORTUNITY.

The Wethersfield Board of Education, Wethersfield
OE No. 66-995 Planning Project Terminated
Amount sought - $122,300

An Advisory Committee and staff will examine the educational needs of Hartford County and will establish priorities for planning a regional operational project to include data processing and computer programs.

Further information: Dr. John E. Deady, Superintendent of Schools, 222 Main Street, Wethersfield, Connecticut 06109. (203) 529-8611

DATA RETRIEVAL SYSTEM.

Beverly Hills Unified School District, Beverly Hills
OE No. 66-1150 Planning Project Terminated
Amount sought - $92,800

An automatic information retrieval system for retrieving both audio and visual information will be tested in the instructional program of four elementary schools as a pilot project.

Further information: Dan M. Gibson, Director of Instructional Materials, Beverly Hills Unified School District, 255 So. Lasky Drive, Beverly Hills, California 90212. (213) 278-1480

PLANNING A REGIONAL PROGRAM OF COMPUTER INSTRUCTION FOR HIGH SCHOOL STUDENTS.

Marion County Intermediate Education District, Salem
OE No. 66-1191 Planning Project Terminated
Amount sought - $26,124

This planning involves development of computer instruction to augment the current programs in several curricular areas by relating them to computer technology. Provision is made for instruction in the nature, role, and use of computers as related to these subjects.

Further information: Merlin L. Morey, Superintendent, Marion County Intermediate Education District, County Courthouse, Salem, Oregon 97301. (503) 364-4401 Ext. 81

UTILIZATION OF COMPUTER ASSISTED INSTRUCTION TO IMPROVE STUDENT ACHIEVEMENT AND FACULTY INSTRUCTION IN SECONDARY SCHOOL MATHEMATICS AND SCIENCE.

Altoona City School District, Altoona
OE No. 66-1324 Operational Project
Amount sought - $85,100

The capacity of an existing computer installation will be increased to allow additional terminals for a computer assisted instructional program in mathematics and science.

Further information: Dr. Thomas R. Heslep, Superintendent, Altoona City Schools, 1415 Seventh Avenue, Altoona, Pennsylvania 16603. (814) 944-8101

REGIONAL EDUCATIONAL DATA PROCESSING AND INFORMATION SYSTEM.

Board of Cooperative Educational Services, First Supervisory District, Erie County, Buffalo
OE No. 66-1458 Planning Project Terminated
Amount sought - $14,200

An educational information system utilizing computer technology will be planned to include an area-wide computer complex, individual computer based instruction, and a computer available to all area schools for instructional purposes.

Further information: Delbert Repp, Director of Educational Data Processing, Board of Cooperative Educational Services, 99 Aero Drive, Buffalo, New York 14225. (716) 634-3333

ENVIRONMENTAL LEARNING CENTER.

Burnt-Hills-Balston Lake Central Schools, Scotia
OE No. 66-1480 Operational Project
Amount sought - $14,000

Multimedia electronic carrels will be installed to provide students increased opportunities for independent study through an instamatic dial system, computer-assisted instruction, and programed units.

Further information: Mrs. Mary Joan Egan, Library Department Chairman, 491 Saratoga Road, Scotia, New York 12302. (518) 399-1175

THE ESTABLISHMENT AND MAINTENANCE OF A CENTER FOR THE DEMONSTRATION OF COMPUTER-AIDED INSTRUCTIONAL SYSTEMS AND OTHER COMPLEX EDUCATIONAL MEDIA.

Board of Cooperative Educational Services, First Supervisory District, Westchester County, Bedford Hills
OE No. 66-1494 Operational Project
Amount sought - $66,300

A center will demonstrate ways to individualize instruction through the use of media such as the dial-selection system and video tape recorders, and with the aid of computers.

Further information: Walter Goodman, Title III Project Director, BOCES Center for Educational Services, 845 Fox Meadow Road, Yorktown Heights, New York. (914) 245-7031

AN AREA SUMMER HUMANITIES PROGRAM ON NON-WESTERN CULTURES FOR NORTHERN WESTCHESTER COUNTY, NEW YORK.

Board of Cooperative Educational Services, First Supervisory District, Westchester County, Bedford Hills
OE No. 66-1528 Operational Project Terminated
Amount sought - $23,700

A humanities program, including computer-assisted instruction, will enroll some 200 high school students in 4-week summer institutes on Africa and Japan.

Further information: Charles Sansone, Fox Lane High School, Mount Kisco, New York. (914) 666-6731

MATHEMATICS COMPUTER CENTER.
Clark County School District, Las Vegas
OE No. 66-1535 Operational Project
Amount sought - $62,965

Students of mathematics in seven secondary schools of Clark County will have access to a computer either at the Center or through teletype lines. Inservice courses will be organized to help teachers utilize the Center in their courses.

Further information: William Merz, Special Assistant for Research and Project Design, P. O. Box 551, Las Vegas, Nevada 89100. (702) 736-5236

VISUAL RETRIEVAL READING CENTER.
Linda Elementary School District, Marysville
OE No. 66-1645 Planning Project Terminated
Amount sought - $20,000

A reading center will be established to serve students, train teachers, and offer social, psychological, and health services utilizing a dial telephone system to retrieve information stored on tapes in areas such as history, music, linguistics, and reading.

Further information: Donald K. Morales, Assistant Superintendent, Yuba County Schools Office, Yuba County Courthouse, Marysville, California 95901. (916) 743-1511

SUPPLEMENTARY MATHEMATICS AND SCIENCE CENTER.
School Board of the City of Richmond, Richmond
OE No. 66-1810 Operational Project
Amount sought - $347,709

A center will be established to offer presently unavailable opportunities in mathematics and science to advanced students and the whole community; to include computer instruction, individual science experimentation, access to a science and mathematics museum, and instruction in astronomy and the earth sciences.

Further information: Dr. H. S. Willett, Superintendent, Richmond Public Schools, Richmond, Virginia 23219. (703) 649-5301

COMPUTER AND MATH PROGRAMING.
School City of Gary, Gary
OE No. 66-1820 Operational Project
Amount sought - $21,242

A course in computer mathematics and programing will be offered to secondary students through the use of facilities at the Illinois Institute of Technology.

Further information: Lee R. Gilbert, Superintendent of Schools, 620 East 10th Place, Gary, Indiana 46402. (219) 885-6193

USE OF COMPUTER ASSISTED INSTRUCTION FOR MATHEMATICS INSERVICE EDUCATION OF ELEMENTARY SCHOOL TEACHERS.
Williamsport Area School District, Williamsport
OE No. 66-1970 Operational Project Terminated
Amount sought - $63,341

Inservice training in modern mathematics for elementary school teachers will be conducted using a newly developed program with a computer.

Further information: Samuel M. Long, Assistant Superintendent, Williamsport Area School District, 845 Park Avenue, Williamsport, Pennsylvania 17701. (717) 787-3976

AREA XI REGIONAL PROJECT "ACCESS".
Polk County Board of Education, Des Moines
OE No. 66-2000 Operational Project
Amount sought - $199,990

Through tele-processing terminals, teachers, pupils, and administrators will be able to use a regional computer; the computer will serve as an instructional tool in all curriculum areas, and as an administrative tool for a local information system.

Further information: Ralph C. Morris, Superintendent, Polk County Public Schools, 216 S. W. First Street, Des Moines, Iowa 50309. (515) 284-6171

TEACHING MATHEMATICS THROUGH THE USE OF A TIME SHARED COMPUTER.
Champlain Valley Union High District #15, Hinesburg
OE No. 66-2173 Planning Project Terminated
Amount sought - $24,502

Plans will be made to develop a program of computer-assisted instruction for academic students at the eleventh and twelfth grade levels and for non-academic secondary students of mathematics; a pilot project will be established and comparisons made with classes taught by standard methods.

Further information: Arthur H. Cheney, Superintendent of Schools, P. O. Box 127, Shelburne, Vermont 05461. (802) 862-4690

A COMPUTER-ASSISTED INSTRUCTION LABORATORY IN MATHEMATICS AND SCIENCE.
Board of Education of Kansas City, Missouri, Kansas City
OE No. 67-2293 Planning Project Terminated
Amount sought - $39,800

Plans will be made for the utilization of a computer-assisted instruction laboratory in the junior high school program. A science and mathematics curriculum will be designed to make affective use of such a laboratory.

Further information: James A. Hazlett, Superintendent, School District of Kansas City, 1211 McGee, Kansas City, Missouri 64106. (816) 221-7565

AUTOMATED DATA ANALYSIS FOR INSTRUCTION AND RESEARCH.
Hayward Unified School District, Hayward
OE No. 66-2631 Planning Project Terminated
Amount sought - $21,685

Computer programing and problem solving techniques will be incorporated in mathematics, social and physical science, and business courses at the high school level.

Further information: Scott D. Thomson, Principal, Cubberly High School, Palo Alto Unified School District, 25 Churchill Avenue, Palo Alto, California 94544. (415) 327-7100 Ext. 5558

COMPUTER USES IN EDUCATION.
Santa Barbara High School District, Santa Barbara
OE No. 66-2710 Operational Project Terminated
Amount sought - $81,292

The facilities of a community computer center will be utilized to measure the effectiveness of computer assistance in high school mathematics and physics; an experimental group taught with computer assistance in each subject will be compared with a control group taught in the traditional manner by the same teachers.

Further information: Norman B. Scharer, Superintendent of Schools, 1235 Chapala Street, Santa Barbara, California 93104. (805) 965-7021

USE OF COMPUTERS FOR INSTRUCTION
FISCAL YEAR 1967

COMPUTER BASED INSTRUCTION.
Board of Cooperative Educational Services, First Supervisory District, Erie County, Buffalo, New York
OE No. 67-2947 Operational Project
Amount sought - $239,055

Procedures developed under Title III Planning Grant #OEG-1-6-001458-1055 will be implemented for the utilization of computer-based resource units, computer-assisted instruction, in-service training for administrators and faculty, and general education units aimed at the exposure of pupils to a basic orientation in computers and data processing. Implementation will involve the employment and training of personnel, purchase of required materials, and purchase of computer-time necessary to permit curriculum development which will facilitate and improve instruction.

Further information: Ernest H. Hoeldtke, Supt., Board of Cooperative Educational Services, 99 Aero Dr., Buffalo, N. Y. (716) 634-6800

DYNAMIC MULTIPHASE AREA-WIDE DATA PROCESSING CURRICULUM.
Traverse Bay Intermediate School District, Traverse City
OE No. 66-2524 Planning Project Terminated
Amount sought - $26,744

A centrally coordinated multiphase data processing curriculum which will raise the occupational capabilities of many of the area high school and community college students will be planned and developed.

Further information: Byron Anger, Traverse Bay Area Intermediate District Superintendent, Court House, Traverse City, Michigan 49684. (616) 947-6417

REGIONAL INSTRUCTIONAL COMPUTER CENTER.
Hamden, Connecticut, Board of Education, Hamden
OE No. 66-2963 Operational Project
Amount sought - $172,997

A suburban educational computer center, designed on the basis of a previous Title III Planning Grant, will be established to serve 12 participating school systems. Three phases of the operational program will consist of (1) development of curriculum and teacher training programs (2) teacher training and pilot use of the facilities (3) installation of remote student councils in participating schools and the implementation of full administrative services.

Further information: David Wyllie, Superintendent of Schools, 75 Washington Ave., Hamden, Connecticut. (203) 248-4497

ESTABLISHING EXEMPLARY CENTERS FOR CONTINUOUS PROGRESS EDUCATION.
Board of Education of Salt Lake City, Salt Lake City, Utah
OE No. 67-3068 Operational Project
Amount sought - $420,475

One or more exemplary elementary schools will be established in each of five school districts as models for continuous progress education wherein each student progresses in accordance with his individual growth timetable and with programs designed to best develop his abilities. The schools will emphasize curriculum and school reorganization, individualized instruction, new instructional media, rapid information retrieval systems, new procedures for reporting pupil progress, and use of teacher interns from local universities.

Further information: Dr. Arthur C. Wiscombe, Deputy Supt., Board of Education of Salt Lake City, 440 East 1st So., Salt Lake City, Utah. (801) 322-1471

A COMPUTERIZED APPROACH TO THE INDIVIDUALIZING OF INSTRUCTIONAL EXPERIENCES.
Boulder Valley School District Re 2, Boulder
OE No. 67-3253 Operational Project
Amount sought - $67,138

Computer techniques will be used to assist classroom teachers in making decisions about instructional programs for individual students. Teachers will have easy access to computer-stored information about individual student characteristics and curriculum alternatives. The program will include inservice training, a restructured curriculum, and the use of new instructional materials.

Further information: Richard M. Fawley, Director of Curriculum, Research & Statistical Analysis, 1440 Walnut St., Boulder, Colorado 80302. (303) 442-6931

AIR AGE VOCATIONAL PROGRAM.
Adams-Arapahoe School District 28-J, Aurora
OE No. 67-3279 Planning Project Terminated
Amount sought - $27,366

A secondary school vocational curriculum will be planned to offer students training in airframe and power-plant mechanics, airplane piloting, aircraft ground duties, helicopter piloting, and helicopter mechanics. The program also will provide vocational orientation to electronics, data processing, meteorology, reservation making and ticket selling, operations, and communications.

Further information: William C. Hinkley, Superintendent, 1085 Peoria St., Aurora, Colorado 80010. (303) 364-3331

DATA PROCESSING INSTRUCTION CENTER.

School District #5, Franklin, Wisconsin
OE No. 67-3353 Operational Project
Amount sought - $203,328

A data processing instruction center will be developed for a three-county area for teaching data processing to students of both public and non-public schools. Specially trained instructors will work with each local staff to teach the basic philosophies and concepts of data processing, develop curricula, and utilize a team teaching approach at participating schools.

Further information: H. E. Guzniczak, Superintendent of Schools, 7380 South North Cape Road (P.O. Box 245), Franklin, Wisconsin 53131. (414) 425-2554

PLANNING AND PILOT IMPLEMENTATION OF A COMPUTER BASED INSTRUCTIONAL SYSTEM.

Board of Education of the City of New York, Brooklyn
OE No. 67-3362 Operational Project
Amount sought - $689,898

A computer based instructional system will be planned and operated to serve elementary school groups, remedial high school, and adult groups. The individual drill and practice curriculum developed at Stanford will be used for mathematics, spelling and reading in five counties of a depressed urban area. Two hundred classrooms in sixteen schools will be equipped with student terminals. Menial chores will be reduced and personalized instruction will be given as needed.

Further information: Dr. Bernard E. Donovan, Superintendent, 110 Livingston Street, Brooklyn, New York 11201. (212) 596-6161

USE OF COMPUTER ASSISTED INSTRUCTION TO TEACH SPELLING TO SIXTH GRADERS.

State College Area School District, State College
OE No. 67-3518 Operational Project Terminated
Amount sought - $75,983

Two spelling programs, each capable of being presented via computer assisted instruction or regular classroom channels, will be prepared and administered to sixth-grade classes to determine the relative efficiencies of the approaches and the media used.

Further information: George N. Demshock, Assistant to the Superintendent for Research and Development, 131 W. Nittany Ave., State College, Pennsylvania 16801.

ESTABLISHING A COMPREHENSIVE, PREVENTIVE LEARNING DISABILITIES AND MENTAL HEALTH PROGRAM.

Alfred I. DuPont School District, Wilmington
OE No. 67-3567 Operational Project
Amount sought - $143,141

A program to eliminate school failure will be established by identifying special needs of students and providing consultation and supervision, with a data processing system for research and control. A flexible curriculum precisely geared to the individual's stage of development will make education in this city school district more responsive to the individual child.

Further information: Carroll W. Biggs, Chief School Officer, Concord Pike at Mt. Lebanon Rd., Wilmington, Delaware 19803. 475-1500

LEA COUNTY DATA PROCESSING CENTER.

Hobbs Municipal Schools, Hobbs
OE No. 67-3592 Operational Project
Amount sought - $71,363

A data-processing center having facilities for teaching computer application to mathematics, science, and business will be established. Specific occupational instruction in data processing, programing languages and electronic storage of data will be offered. The center will also handle the school administrative work of payroll, attendance, grade cards, health records, and test scoring, It will serve five school districts.

Further information: R. N. Tydings, Superintendent of Schools, Box 1040, Hobbs, New Mexico. (505) 393-9183

PLANNING FOR COMPUTER INSTRUCTION.

The Westlake Board of Education, Westlake
OE No. 67-3675 Planning Project Terminated
Amount sought - $17,430

A data processing center to give instruction on a computer to pupils in grades 8-12, gifted elementary pupils, and adults will be planned as part of the curriculum. Inservice training for teachers will also be a feature. The center will be used in business, mathematics, and science courses to emphasize the importance of computers today.

Further information: Franklin B. Walter, Superintendent, Westlake City School District, 2282 Dover Center Road, Westlake, Ohio 44091. (216) 871-7300

LABORATORY PROGRAM FOR COMPUTER ASSISTED LEARNING.
School Department of Westwood, Westwood
OE No. 67-3688 Operational Project
Amount sought - $112,762

A mathematics classroom/laboratory based on the use of a time-shared digital computer as a teaching aid will be designed to improve mathematics instruction in the secondary school. This study will apply advanced computer technology plus classroom methods and materials (from the previous OE grant) to develop individualized instruction for use in both remedial and enrichment programs, and will provide for appropriate inservice teacher training.

Further information: Erwin A. Gallagher, Superintendent of Schools, High Street, Westwood, Massachusetts 02090. (617) 326-7500

AIMS ACCESS TO INSTRUCTIONAL MATERIALS AND SERVICES.
School District of the City of Omaha, Omaha
OE No. 67-3791 Operational Project
Amount sought - $227,280

A dial access retrieval system, linked to existing computer facilities, and a closed circuit television station will be planned and operated as a pilot program with one school. The program will include inservice training for teachers in planning, establishing, and operating the facility.

Further information: Owen A. Knutzen, Acting Superintendent, School District of the City of Omaha, 3902 Davenport Street, Omaha, Nebraska 68131. (402) 556-6600

PROBLEM SOLVING - COMPUTER STYLE.
Orleans Parish School Board, New Orleans
OE No. 67-3834 Operational Project
Amount sought - $87,896

A computer center will be established to enrich student learning in mathematics, chemistry, and physics. The center will also facilitate development and evaluation of new teaching media and methods in home economics, music, and the social sciences for the school district.

Further information: Carl J. Dolce, Superintendent of Schools, 703 Carondelet Street, New Orleans, Louisiana 70130. (504) 524-8592 Ext. 337

AIMS - ACCESS TO INSTRUCTIONAL MATERIALS AND SERVICES.

School District of the City of Omaha

OE No. 67-3971 Operational Project

Amount sought - $89,999

A dial access retrieval system, linked to existing computer facilities, will be planned and operated on a pilot basis in one school. Inservice training will be provided for teachers who will participate in planning, establishing, and operating the facility. Counties served: Douglas.

Further information: Owen A. Knutzen, Acting Superintendent, School District of the City of Omaha, 3902 Davenport Street, Omaha, Nebraska 68131. (402) 556-6600

TOTAL INFORMATION FOR EDUCATIONAL SYSTEMS.

Suburban School Services Joint Board, St. Louis Park

OE No. 67-3987 Operational Project

Amount sought - $449,828

Program will coordinate the development of data processing services in school systems and provide for the automatic generation of required educational data to the State Department of Education. The EDP facility will serve as a center for research and development of computer applications in educational management and instruction, as well as provide for a continuous program of inservice training for school personnel.

Further information: Harold Enestredt, Superintendent, 6425 W. 33rd Street, St. Louis Park, Minnesota 55426. (612) 929-2651

THE DEVELOPMENT OF A TOTAL INFORMATION CENTER WITH AUXILIARY SERVICES TO INDEPENDENT SCHOOL DISTRICTS.

Franklin County Board of Education, Columbus

OE No. 67-4053 Operational Project

Amount sought - $212,990

A computer center, serving 16 school districts in the county, will be established to relieve teachers of many clerical and administrative duties and to provide administrators with the information necessary for the effective operation of schools. Student records, financial records, and inventory records will be stored and will be available to the districts via terminal lines. The possibilities for a library records system and for computer-assisted instruction will be studied. Counties served: Franklin.

Further information: Thomas J. Quick, Superintendent, Franklin County Schools, 46 E. Fulton Street, Columbus, Ohio 43215. (614) 221-1211 Ext. 415

COMPUTER-BASED TEST DEVELOPMENT CENTER.

Multinomah County Intermediate Educational District, Portland

OE No. 67-4213 Operational Project

Amount sought - $68,483

A test development service will be operated in 17 school districts to provide teachers, administrators, and special project personnel with well-validated achievement tests designed for specific purposes and specific learner groups, e.g., high school science tests with norms appropriate to the school system. This service will be part of an evolving system which will lead to computer-assisted instruction.

Further information: Errol C. Rees, Superintendent, P. O. Box 9172, Portland, Oregon 97216. (503) 255-1841

COMPUTER INSTRUCTION NETWORK.

Marion County I.E.D., Salem

OE No. 67-4286 Operational Project

Amount sought - $177,077

Every high school student in six districts will be instructed in the use of representative types of computer equipment. The program will provide instruction, understanding, and training in basic computer concepts, effects of automation on society, and problem solving. Inservice training will be given for the study of the functioning of the computer.

Further information: Mr. Merlin L. Morey, County School Superintendent, 681 Center Street, N.E., Salem, Oregon 97301. (503) 585-6210

INDICOM - "INDIVIDUAL COMMUNICATIONS SYSTEM"

Saginaw Township Community Schools

OE No. 67-4301 Operational Project

Amount sought - $576,208

Computer assisted instruction will be implemented in the teaching of mathematics and spelling in grades 3 - 6 in one school district. The programs to be used will be transmitted from a central computer to classrooms in several schools, and will utilize diagnostic, branching, and sequencing at five levels of difficulty.

Further information: A. Mills Wilber, Superintendent of Schools, 5685 Shattuck Road, Saginaw, Michigan 48623. (517) 792-8771

MULTI-MEDIA COURSE MODEL APPLIED TO SECONDARY EDUCATION.

Board of Education of Anne Arundel County, Annapolis

OE No. 67-4342 Operational Project

Amount sought - $427,303

A model secondary level curriculum, emphasizing a multi-media, computer-controlled approach, will be designed for schools in the district. The model will be tested and used as a basis for complete revision of the secondary school curriculum. Objectives of the program are to use modern educational technology and results of learning-process research in designing the model. Counties served: Anne Arundel

Further information: David S. Jenkins, Superintendent, Board of Education, Anne Arundel County, Box 951, Annapolis, Maryland 21404. (301) 268-3345

DOD DEPENDENTS SCHOOLS COMPUTER ASSISTED INSTRUCTION.
PACAF Headquarters (DPD) Dependents School, Honolulu
OE No. 67-4462 Planning Project Terminated
Amount sought - $85,150

Operational CAI (Computer Assisted Instruction) designs will be developed for use throughout the school system, through a program of school-needs and available equipment study, experimental design, and operational design. This will result in the founding of a structured CAI science, documented by reports and how-to-do-it manuals for use by all school systems in the United States.

Further information: Richard Meyering, Acting Superintendent Hickam Field APO 96553SF, Honolulu.

COMPUTER ASSISTED INSTRUCTION IN MATHEMATICS.
McComb Municipal Separate School District, McComb
OE No. 67-4721 Operational Project
Amount sought - $333,823

An experimental mathematics program, using computer assisted instruction, will be tested in school districts where such a program has not previously been used in public schools. Attempts will be made to determine the adaptability of the program to various types of student populations and to determine methods of gaining acceptance from the faculty. Counties served: South Pike, Franklin.

Further information: J. D. Prince, Superintendent, McComb Municipal Separate School District, 695 Minnesota Avenue, McComb, Mississippi 39648. (601) 684-4661

USE OF COMPUTERS FOR INSTRUCTION
FISCAL YEAR 1968

STANFORD-RAVENSWOOD COMPUTER-ASSISTED INSTRUCTION PROGRAM.

Ravenswood City School District, East Palo Alto
OE No. 68-5083 Operational Project
Amount sought - $500,100

The computer-assisted instruction program established for an elementary school will be revised and expanded for adaptation to other school systems. Lesson material will be evaluated, pre-tests prepared, and individualized instruction programed for a computerized training program in elementary school mathematics and language art. Counties served: San Mateo.

Further information: Roderick Moore, Superintendent of Schools, 2160 Euclid Avenue, East Palo Alto, California 94303. (415) 324-1621

INDIVIDUALIZED INSTRUCTION THROUGH A LEARNER-CENTERED MULTI-MEDIA APPROACH.

Austin Independent School District, Austin
OE No. 68-5102 Operational Project
Amount sought - $139,865

Four multi-media centers will be established to provide a systems approach to developing individualized instruction for public elementary school children. Audiotapes, films with synchronized tapes, microfilm readers, and audiovisual stations for computer-assisted instruction and educational television will be utilized. Counties served: Bastrop, Bexar, Blanco, Caldwell, Comal, Gonzales, Guadalupe, Hays, Kendall, Travis.

Further information: Arby B. Carruth, Superintendent, 6100 North Guadalupe Street, Austin, Texas 78752. (512) 452-9331

A COMPUTER-ASSISTED INSTRUCTION LABORATORY IN MATHEMATICS AND SCIENCE.

School District of Kansas City, Kansas City
OE No. 68-5103 Operational Project
Amount sought - $309,037

A computer-assisted instruction (CAI) laboratory will be established to provide facilities for an eighth grade math-science course, stressing math as the language of science. Computer equipment and individualized instruction will be utilized to stimulate the student's interest and alter his attitudes toward math and science, as well as demonstrate the relationship of one to the other. Computer-oriented specialists will provide inservice training and consulting services to the staff. Counties served: Jackson.

Further information: James A. Hazlett, Superintendent of Schools, 1211 McGee, Kansas City, Missouri 64106. (816) 221-7565 Ext. 222

PROJECT TO DEVELOP EFFECTIVE USE OF COMPUTER-ASSISTED INSTRUCTION IN A LARGE PUBLIC SCHOOL SYSTEM.
Board of Education of Montgomery County, Rockville
OE No. 68-5147 Operational Project
Amount sought - $166,353

A program will be established in the elementary and junior and senior high schools to study the effectiveness of computer-assisted instruction and orient the teaching staff to its operation. Available software will be used in "real situations" and necessary adaptations will be made in existing software to meet needs of local curriculums. Use of CAI in diagnosing educational needs, testing, and program evaluation will be explored. Counties served: Montgomery

Further information: Homer O. Elseroad, Superintendent of Schools, 850 North Washington Street, Rockville, Maryland 20850. (301) 762-5000 Ext. 333

EDTECH (EDUCATIONAL DEVELOPMENT THROUGH TECHNOLOGY).
Dover Special School District, Dover
OE No. 68-5153 Operational Project
Amount sought - $234,349

Education will be improved through utilization of a Statewide network of educational technology. Computer programs will provide administrative and instructional services; teachers and pupils will be trained to use the computer as a mathematical training tool; cooperative training for school agencies and teachers will be established; and the use of computers as aids for counseling and guidance, games and simulations, testing and analysis, and curriculum assessment will be evaluated. Counties served: Kent, New Castle, Sussex.

Further information: Dustin W. Wilson, Jr., Superintendent, 945 Forrest Street, Dover, Delaware 19901. (302) 734-4104

NORTHWEST LOUISIANA SUPPLEMENTARY EDUCATION CENTER AND SERVICES.
Bossier Parish School Board, Benton
OE No. 68-5195 Operational Project
Amount sought - $509,265

A regional educational center will provide curriculum research and development programs; educational technology research and services, including educational TV and computer-assisted instruction; pupil personnel services, including special programs for gifted children; and related inservice training for teachers. The center will serve students of all levels, including college students. The services of local audiovisual materials centers will be integrated and coordinated. Counties served: Bienville, Bossier, Caddo, Claiborne, DeSoto, Jackson, Lincoln, Natchitoches, Red River, Sabine, Webster, Winn.

Further information: Emmett Cope, Superintendent, Bossier Parish School Board, Benton, Louisiana 71006. (318) 965-2281

MONMOUTH EDUCATION COUNCIL.

Long Branch Board of Education, Long Branch
OE No. 68-5336 Operational Project
Amount sought - $94,196

An educational improvement center will be established to provide the staffs of 58 public and nonpublic schools with one year of orientation and inservice training in the planning and design of educational systems, systems analysis, communication interaction techniques, and technological advancements. A professional staff of specialists in computer systems design and application will provide programs in special education, adult education, instructional media, business operations, and curriculum research and development. Counties served: Monmouth.

Further information: Herbert A. Korey, Executive Director of the Monmouth Educational Council, Westwood Avenue, Long Branch, New Jersey 07740. (201) 229-5500

VEHICLE FOR CHANGE.

Traverse Bay Area Intermediate School District, Traverse City
OE No. 68-5353 Operational Project
Amount sought - $198,428

An occupational training program in data processing will be established for all area public and nonpublic high school students. The program will provide traditional training for centrally located students and a modular, team teaching, telelecture mode of teaching for students in outlying schools. A data processing center will be established and equipped. Counties served: Antrim, Benzie, Grand Traverse, Kalkaska, Leelanau.

Further information: William L. Gelston, Superintendent, Traverse Bay Area ISD, 1120 East Front Street, Traverse City, Michigan 49684. (616) 946-8920

A COMMONWEALTH CONSORTIUM TO DEVELOP, IMPLEMENT, AND EVALUATE A PILOT PROGRAM OF COMPUTER-ASSISTED INSTRUCTION FOR URBAN HIGH SCHOOLS.

School District of Pittsburgh, Pittsburgh
OE No. 68-5523 Operational Project
Amount sought - $363,099

Computer-assisted, individualized instruction programs in high school general mathematics, algebra, and chemistry will be developed by two major metropolitan school districts in cooperation with the State university and State Department of Education. Educators and computer personnel will develop curriculums and provide instructor training for a pilot program. Counties served: Allegheny, Philadelphia

Further information: Bernard J. McCormick, Deputy Superintendent, Ballefield and Forbes Avenues, Pittsburgh, Pennsylvania 15213. (412) 682-1700

INDIVIDUAL COMPUTER-AIDED INSTRUCTION.

Paintsville Board of Education, Paintsville
OE No. 68-5648 Operational Project
Amount sought - $274,195

Arithmetic will be taught by computer, using a teletype machine familiar to students and teachers, at terminals in Breckinridge and Elliottsville. Each student will work at his pace according to his ability, enabling teachers to detect areas of weakness and provide needed assistance. Sixty teachers will attend a five-day workshop during the summer for training in computer-aided instruction. Counties served: Elliott, Johnson, Magoffin, Menifee, Morgan, Pike, Rowan.

Further information: Oren Teater, Superintendent of Schools, Paintsville, Kentucky 41240. (606) 789-3459

COMPUTER USES IN EDUCATION.

Santa Barbara High School District, Santa Barbara
OE No. 68-5752 Operational Project
Amount sought - $22,300

The facilities of a community computer center will be utilized to measure the effectiveness of computer-assisted instruction in high school algebra and physics. High school algebra and physics instructors will work with professional programmers to develop units of instruction. An inservice component will provide training for teachers selected to use the program. Counties served: Santa Barbara.

Further information: Norman B. Scharer, Superintendent of Schools, 720 Santa Barbara Street, Santa Barbara, California 93101. (805) 963-4331 Ext. 234

INNOVATIVE IMPLEMENTATION OF COMPUTER-AIDED INSTRUCTION.

School Committee, City of Boston, Boston
OE No. 68-5762 Operational Project
Amount sought - $77,000

Computer techniques will be used to develop and implement diagnostic testing and instructional methods and materials for grades 1-7 on a pilot basis. Individualized instruction in reading, spelling, and auditory discrimination training will be emphasized. The program will utilize the technical resources and personnel of the Harvard Computer Center. Counties served: Suffolk.

Further information: William H. Ohrenberger, Superintendent of Boston Public Schools, 15 Beacon Street, Boston, Massachusetts 02108. (617) 227-5500

DOVACK METHOD FOR TEACHING READING.

Jefferson County Board of Public Instruction, Monticello
OE No. 68-6004 Operational Project
Amount sought - $67,004

The DOVACK (differentiated, oral, visual, aural, computerized, kinesthetic) self-pacing method for teaching reading to retarded children will be field tested in a portable classroom. Reading deficiencies of individual students will be isolated by computer analysis and by review of tape recordings of stories dictated by the students. Printed versions of these stories will be played back for the students on the computer's display screen, where visual recognition of the words can be made by the student. The student will also be able to trace partially known words with felt tip pens. The observing teacher, in this way, can notice where reading difficulties exist and can list deficiencies that must be corrected. Three experimental groups, each composed of 30 retarded readers drawn from grades 1-6, will be taught by this method, while a parallel program--using more conventional approaches--will be conducted in three control classes, each having 30 retarded pupils. Program evaluation will be made in terms of adaptability, effectiveness, and economic feasibility of the experimental group methods in comparison with the control group methods as results of reading tests are computer compiled and analyzed. Counties served: Jefferson.

Further information: Desmond M. Bishop, Superintendent of Public Instruction, P. O. Box 499, Monticello, Florida 32344. (904) 997-2022

IMPROVED EDUCATIONAL PROGRAM THROUGH INTER-SCHOOL COMMUNICATIONS.

Moore County Board of Education, Carthage
OE No. 68-6379 Operational Project
Amount sought - $169,308

Audiovisual aids, closed-circuit television, computer-assisted instruction, and flexible scheduling will be utilized to achieve individualized instruction in nine elementary schools, a new model high school, and a community college to be located in an educational park. High school students will participate in special classes and extracurricular activities to learn operation and use of data processing equipment. Cooperative educational efforts, involving school personnel from surrounding administrative units, will be directed toward curriculum upgrading; and such aids as radio, teletype, telephone teacher, telelecture, telescript, teletrainer, computers, and television will be used to motivate students to higher academic achievement, individualize instruction and study, and provide the student an opportunity to understand the importance of modern electronic devices. Specialized teaching methods will be designed for the model school area. Counties served: Chatham, Harnett, Hoke, Lee, Montgomery, Moore, Randolph, Richmond, Scotland.

Further information: R. E. Lee, Superintendent, Moore County Schools, Box 977, Carthage, North Carolina 28327. (919) 947-2976

A RURAL COUNTY COMPUTER-RELATED INSTRUCTIONAL TECHNOLOGY PROJECT.
Wakulla County Board of Instruction, Crawfordville
OE No. 68-6399 Operational Project
Amount sought - $176,704

Computer-based instructional (CBI) materials in mathematics, reading, and spelling, which are successfully in use in urban/suburban areas, will be validated via a time-sharing, remote-processing computer for use by underachieving rural students. The CBI materials used will be adapted to local needs, teachers will be trained in their use, and evaluation instruments will be assembled or developed for measuring achievement and interest. Special English language materials will be prepared for both CBI and conventional classroom use to change some of the colloquial speech patterns of the area. To develop positive parental attitudes towards the program, a series of adult presentations will be developed that will provide relevant information about CBI, the nature and benefits of education in general, and the role of educational innovations in their children's lives. Parents will also be familiarized with community service agencies, libraries, and educational opportunities open to them. Counties served: Wakulla

Further information: William E. Whaley, Superintendent of Public Instruction, P. O. Box 98, Crawfordville, Florida 32327. (904) 926-3661

DEVELOPING A CITY CENTER FOR LEARNING.
Independent School District No. 625, St. Paul
OE No. 68-6499 Operational Project
Amount sought - $200,000

A diagnostic-remedial center and a nongraded primary demonstration school will be operated by an educational service and resources center. This center will be established as part of a community program to rehabilitate and revitalize the core of an urban area. The primary school will serve as the foundation for the educational-progress activities of the center and will emphasize intensive parental and community involvement. The center will also be concerned with student, teacher, and curriculum development. Multimedia resources, including audiovisual materials, realia collections, and libraries, presently being used in the various schools will be expanded by a task force from the center; mobile laboratories will be provided; and units of computer-assisted instruction will be developed. Facilities for continuing vocational and avocational education will be developed for the community. Counties served: Ramsey

Further information: Donald W. Dunnan, Superintendent of Schools, 615 City Hall, St. Paul, Minnesota 55102. (612) 223-4393

PROJECT ADAIR: AUTOMATED DATA ANALYSIS FOR INSTRUCTION AND RESEARCH.
Hayward Unified School District, Hayward
OE No. 68-6677 Operational Project
Amount sought - $63,380

Computer instruction will be given to 4,200 students and related inservice training, given to 113 teachers over a two-year period. Before the school year starts, a special computer programing course will be given to 30 teachers; these teachers will then help plan the program and will, in turn, train 113 teachers from public and nonpublic schools in the skills necessary to use computers and other automated data processing equipment and in the techniques of teaching students the fundamental concepts of the computer as a problem-solving tool. Students in six high schools will receive instruction in computer science as it relates to courses in business education, science, mathematics, and social studies. Students will be taught to write computer programs and apply the computer as a problem-solving tool in these subject areas. Techniques for refining and further developing written student programs will be facilitated by the use of optical scanners and by the services of two systems analysis consultants to help the students produce introductory programs for a computer. Throughout the program, teachers will develop new curriculums in different subjects and at different grade levels, with emphasis on the related role of computers. Counties served: Alameda.

Further information: William L. Cunningham, Superintendent of Schools, 1099 "E" Street, Hayward, California 94544. (415) 538-6100 Ext. 211

PILOT CITIES AREA DEMONSTRATION SCHOOLS.
Board of Education of the City School District of the City of Cincinnati, Cincinnati
OE No. 68-6700 Planning Project
Amount sought - $125,000

A complete school program will be planned for one model elementary school and one model junior high school to be established within the pilot cities area of Cincinnati. Ten task force committees will be formed to study various aspects of the school program; committee areas of concern will include computer assisted instruction, preschool programs, teacher development, and a community-center program. Counties served: Hamilton

Further information: Paul A. Miller, Superintendent, 230 East Ninth Street, Cincinnati, Ohio 45202. (513) 621-7010

INDIVIDUALIZED INSTRUCTION PROGRAM FOR PRIMARY GRADE PUPILS.
Joint District No. 8, Shawano
OE No. 68-6749 Operational Project
Amount sought - $100,000

An attempt will be made to devise a learning environment at the primary grades level that will be equally optimized for Menominee and non-Indian pupils alike. Efforts will be directed to planning the overall design and operating procedures for a computer-assisted teaching system, whereby basic concepts and skills in primary grade communications arts and mathematics can be taught on an individual, self-paced basis. Coincidentally a professionally-staffed in-service program will undertake to develop within-staff competence in producing CAI-series optimally matched to learner needs specific to the local area. Counties served: Shawano

Further information: Arnold A. Gruber, Superintendent, 204-210 South Franklin Street, Shawano, Wisconsin 54166. (715) 526-3195

USE OF COMPUTERS FOR ADMINISTRATION AND GUIDANCE AND COUNSELING
FISCAL YEAR 1966

GEAUGA COUNTY AREA EDUCATIONAL AND CULTURAL CENTER.

Geauga County Board of Education, Chardon
OE No. 66-18 Planning Project Terminated
Amount sought - $51,950

Sixteen service areas will be studied independently by planning committees working within the framework of four divisions: Instructional Resources and Materials, Instructional Program Development, Pupil Personnel Services, and Centralized Administrative Facilities and Functions. The service areas include an instructional materials center, visiting specialists in the fine and performing arts, specialized library services, specialists in content area, a nursery school program, adult education, special education, vocational education, remedial reading, physical fitness and health, psychological, guidance, and sociological personnel; educational research and computer services, central purchasing, transportation coordination, food service, and school plant planning. Needs are to be assessed and educational programs and cultural services planned to meet them. Number of persons to be served: 14,000 public school students, 1,722 nonpublic school students, and 39,278 adults.

Further information: Dr. E. Dunmire, Assistant Superintendent, Geauga County Schools, Courthouse, Chardon, Ohio. (216) 285-2222 Ext. 48 or 49

COOPERATIVE PROJECT TO PROVIDE SUPPLEMENTAL SERVICES TO A GROUP OF ELEMENTARY AND SECONDARY SCHOOLS OF NEW MEXICO.

Board of Education of the City of Santa Fe
OE No. 66-48 Operational Project
Amount sought - $299,500

An education services center for central and northern New Mexico (the general area served by the New Mexico Research and Study Council) will provide for curriculum development in reading, vocational education, and health and physical education; an instructional materials laboratory; audiovisual equipment; and library, industrial arts, and science mobile units. Psychological services will include guidance and counseling; testing and test scoring; programed learning; research; and speech therapy. The center will also offer music and cultural programs, special education, a planetarium, adult education, and data processing. Twenty-six school systems now affiliated in the Council will make use of the center as a facility and clearing house for cooperative educational activities. Number of persons to be served: 131,000 elementary and secondary school students; 3,500 school staff members; 9,500 preschoolers; and 30 adult students.

Further information: Orien C. Shockley, Superintendent, Santa Fe Public Schools, Santa Fe, New Mexico 87501. (505) 982-2631

SURVEY AND EVALUATION OF EDUCATIONAL NEEDS AND RESOURCES OF THE REGION COMPRISED OF CLARION, FOREST, JEFFERSON, MERCER, AND VENANGO COUNTIES OF PENNSYLVANIA.

Jefferson County Board of Education, Brookville
OE No. 66-84 Planning Project Terminated
Amount sought - $31,378

Total community planning for improved education is to include an extensive survey of human and material resources in the 5-county area; cooperation with educational and cultural institutions to determine the best ways of using these resources in meeting the needs of area school children; selecting ideas for operational projects; and developing plans for implementing these ideas. To be considered are: experimental learning and demonstration, instructional materials, psychological and guidance services, curriculum development, inservice education, research and development, electronic data processing, publication and communication facilities, and continuing education. An advisory committee will be comprised of county superintendents and representatives from local school districts, private schools, and other educational agencies. Number of persons to be served: 71,350.

Further information: John D. McLain, Area Curriculum Coordinator, Clarion State College, Clarion, Pennsylvania. (814) 226-6000 Ext. 236

TEXAS GULF COAST SCIENCE EDUCATIONAL RESOURCES CENTER.

Houston Independent School District, Houston
OE No. 66-86 Planning Project Terminated
Amount sought - $143,234

A detailed analysis will be made of the need in the Gulf Coast area, which includes Harris and adjacent counties, for a Science Educational Resources Center, and information will be collected about ways and means of meeting the need. The activities of the proposed center would be to demonstrate new ways to teach laboratory science and do research; to make scientists available to assist instruction; to establish procedures for scientific field trips; to organize research programs to test materials and methods of science instruction; to establish inservice programs; to plan student projects in cooperation with institutions of higher education; and to develop television and radio programs. Several existing pilot projects will be extended and the feasibility of a number of projects will be established, including traveling museum exhibits and use of computer retrievable library systems. This project is estimated to serve 500,000 elementary and secondary science students.

Further information: Joseph Strehle, Supervisor of Science, Houston Independent School District, 1300 Capitol, Houston, Texas 77002. (713) CA 4-9871

REGIONAL EDUCATIONAL SERVICES CENTER THROUGH UNIFIED EFFORT: PROJECT RESCUE.

Danbury Board of Education, Danbury

OE No. 66-146   Planning Project   Terminated

Amount sought - $70,160

The center is to be planned in four sections: 1) Evaluation and Remediation, to provide supplementary psychological, social, health, and guidance and counseling services; in-school, out-of-school and after-school remediation programs; and programs for the educationally and culturally disadvantaged. 2) Research and Demonstration, to assist teachers in developing new ideas to disseminate research findings and to demonstrate new methods and technology. 3) Community and Cultural Development, to coordinate the utilization of all community and cultural resources. 4) Educational Media and Materials Resources, to include television studios, a data processing center, mobile units, and a multi-media audiovisual system. Number of persons to be served: 42,618 children.

Further information: Richard Rausch, Associate Superintendent, Danbury Board of Education, Mill Ridge Administration Building, Mill Ridge, Danbury, Connecticut 06811. (203) 748-5685

A PROPOSAL FOR A CONTINUOUS PROGRAM OF INDEPENDENT STUDY FROM ELEMENTARY THROUGH SECONDARY EDUCATION.

Niskayuna Central School District No. 1, Schenectady

OE No. 66-172   Planning Project   Terminated

Amount sought - $22,909

Niskayuna School District wants to revise its libraries so as to include a variety of auto-instructional devices such as self-contained single concept film projectors, coupled slide projectors and tape recorders, reading pacers, teaching typewriters, micro storage equipment, and an electronic information retrieval system. A highly qualified person is to be employed to coordinate all phases in the planning and implementation of this program and advice is to be sought from consultants. About 3,100 students will be served.

Further information: Joseph H. Oakey, Principal, Niskayuna High School, Schenectady, New York 12309. (518) 393-6651

STUDENT PROGRAMING AND COUNSELING ASSISTANCE BY DATA PROCESSING FOR SOUTHWEST MISSISSIPPI.

McComb Municipal Separate School District, McComb
OE No. 66-173 Operational Project Terminated
Amount sought - $15,500

A center will be established to process data by computer to aid in the guidance, instruction, and curriculum planning of students in five counties. The effectiveness of programed instruction in algebra and of different ways to teach reading will be evaluated. Dropping out of school and changes in curriculum needed to prevent it will be studied. The number of children to be served is estimated at about 24,000.

Further information: R. W. Lambuth, Superintendent of Schools, Magnolia, Mississippi. (601) 783-2575

A DISPERSED SUPPLEMENTARY EDUCATION SERVICES CENTER FOR THE GENESEE VALLEY REGION OF UP-STATE NEW YORK.

Central School District No. 3, Town of Irondequoit, Rochester
OE No. 66-180 Planning Project Terminated
Amount sought - $183,773

To be planned is the establishment in the Genesee Valley Region, which is comprised of Genesee, Livingston, Monroe, Ontario, Orleans, Seneca, Wayne, Wyoming, and Yates Counties, of a center consisting of a Production and Control Unit near Rochester that would be in communication by microwave and cable with other units in the nine counties. Each subunit would be equipped to receive, reproduce, and distribute video, sound, and facsimile transmissions from the central unit to any children or teachers in its area. Services, ideas and instructional materials and equipment for teachers and students will be created and supplied. Teachers in service will be trained. The Center will work closely with the Rochester Area Educational Television Association, bring the educational programs of the Rochester Museum of Arts and Sciences to students and adults, and extend the activities of the Rochester Art Gallery. Personnel and equipment for data processing will be acquired. Assistance will be given in making existing library resources available. The number of persons to be served is estimated at 257,238 students and teachers.

Further information: Earle W. Helmer, 370 Cooper Road, Rochester, New York 14617. (716) FI 2-5500

SUPPLEMENTARY EDUCATIONAL CENTER FOR CLINTON, ESSEX AND FRANKLIN COUNTIES.
Board of Cooperative Educational Services of Clinton County, Ellenburg Depot
OE No. 66-190 Planning Project Terminated
Amount sought-$40,200

A 3-county educational center is to be planned for pupil personnel services such as psychologists, social workers, counselors, remedial specialists, medical and health personnel, and psychiatric consultants. It is also to serve as a communications center for audiovisual materials, radio and television, programed instruction, microfilming, and data processing; a center of innovation for the initiation of new programs, such as prenursery, preschool parent education, special classes, after-school programs, vocational school programs, summer school, outdoor recreation, and units for art, music, theater, science, language and library; a center for inservice education to initiate and coordinate programs for teachers working with special classes or exceptional children; and a center for enrichment in education to provide special educational and cultural programs and services which would supplement regular school programs. There are 152,764 residents in the area to be served.

Further information: John W. Harrold, Executive Officer, Ellenburg Depot, New York 12935. (518) 561-2251 or 594-7627

INYO-SAN BERNARDINO COUNTIES PLANNING GRANT.
Office of the County Superintendent of Schools of San Bernardino County
OE No. 66-272 Planning Project Terminated
Amount sought - $236,533

This project is to include a survey of the area's educational needs, gathering data about exemplary programs, examination of pertinent research, exploration of available resources, analysis of data, and establishment of priorities. It is to result in plans for supplementary educational centers and exemplary educational programs to serve both counties. Emphasis will be on educational television and radio, year-round use of school and community facilities, inservice training for teachers, data processing, a mobile child guidance clinic, a mobile health unit for children, mobile centers for art museum services, a mental health program combining guidance and curriculum services, extensive educational trips, and use of community cultural resources. Number of persons to be served: 200,000 students.

Further information: Roy C. Hill, County Superintendent of Schools, 5th Floor, Hall of Records, 172 West Third Street, San Bernardino, California 92403. (714) TU9-0111 Ext. 412

NASSAU COUNTY PLANNING PROPOSAL.
Union Free School District No. 15, Towns of Oyster Bay and North Hempstead, Jericho
OE No. 66-326 Planning Project Terminated
Amount sought - $400,371

An interlocking system of regional service centers will be planned to meet suburban school needs in areas such as curriculum development and adaptation, inservice education, home and school pupil personnel services, communications and media development, library services, cultural and special sciences services, and data automation. Planning is to include inventories of needed resources and services and of those which are available. Visits are to be made to similar regionally coordinated educational programs. County and subregional pilot action services and centers will be designed and implemented. A center may provide services such as diagnosis of learning and adjustment problems, psychotherapy for students and their families, and special personnel, including psychologists, speech therapists, reading specialists, and guidance counselors. Number of persons to be served: 500,000, including preschoolers, elementary and secondary school students, and adults.

Further information: Kenneth J. Dunn, Executive Director, The Education Council for School Research and Development, 450 Jericho Turnpike, Mineola, New York 11501. (516) PI 2-5135.

THE TEXAS COOPERATIVE DISSEMINATION PROJECT.
Canyon Independent School District, Canyon
OE No. 66-343 Planning Project Terminated
Amount sought - $24,555

The area to be served by this project includes the 26 counties in the Panhandle of Texas. To be planned is a pilot project to find new information in all fields of learning, consider its relevancy to subjects taught in all grades of school, adapt it to the instructional program, make it available to teachers, and help the teacher make use of it. These purposes will be accomplished through the use of information retrieval systems, exemplary programs, new media of communication, consultants, conferences, and clinics. The services of a planning staff will be obtained by contract, a Regional Central Planning Committee of 15 members will be formed, and a Committee of Consultant-Evaluators will be selected. Surveys will be made to verify the assumed need for the program. The number of persons to be served is estimated at 5,000 teachers and 55,000 pupils.

Further information: Huelyn Laycock, Superintendent of Schools, Canyon, Texas (806) OL 5-2509

SUPPLEMENTARY EDUCATIONAL CENTER FOR BUCKS COUNTY.
Bucks County Board of School Directors, Doylestown
OE No. 66-366 Planning Project Terminated
Amount sought - $28,542

To explore ways of developing technology for intensifying the learning process to meet the needs and interests of each pupil, planning committees will study child and youth study services, including diagnostic procedures, staffing patterns, grouping, communicative skills, creativity, and computer technology; instructional media services, including textbooks and nontext materials, industrial and cultural resources, multilevel learning activities, educational television, video tape, humanities curriculum, and library resources for students and teachers; and training, advisory, and consultant services, including personnel training and parent education. A master plan for developing this technology through innovative services and exemplary programs will offer solutions to meet locally identified needs for individualized instruction. A supplementary center is to be organized through which these services and programs will be translated into classroom practice by coordinating research, development, evaluation, and dissemination of instructional techniques and educational programs and media. Number of persons to be served: 100,000 students, grades K-12.

Further information: Dr. Charles E. Brewin, Jr., Assistant County Superintendent of Schools, County Administration Building, Doylestown, Pennsylvania. (215) 348-2940

THE SOUTH KINGSTOWN SCHOOL DEVELOPMENT PROGRAM.
South Kingstown School Department, Wakefield
OE No. 66-406 Planning Project Terminated
Amount sought - $29,040

Planning will be done to organize the school to accommodate children with different rates of learning and to revitalize the Adult School. Curriculum will be planned to provide continuity of instruction, to convert "Operation Headstart" efforts into a nongraded program for children of the ages of 4,5, and 6 based upon the theories of the Gesell Institute, and to appraise the value of the Initial Teaching Alphabet. The most effective use of the talents, training, interest, and experience of the teacher will be planned through team teaching and employment of lay persons in noninstructional capacities. Planning will include consideration of possibilities for establishing a materials center and curriculum laboratory, educational television, and data processing. Study will be given to establishing a community-school type of service. To be planned also is a program to increase cooperation among school systems, community agencies, and universities.

Further information: Lesley H. Browder, Assistant Superintendent, South Kingstown School Department, 71 Columbia Street, Wakefield, Rhode Island. (401) 789-6559

BOOK CATALOG - J.H.S. LIBRARIES.
Union Free School District No. 22, Farmingdale
OE No. 66-461 Operational Project Terminated
Amount sought - $15,300

A book catalog, produced in quantity by data processing equipment, will replace the card catalog system presently in use in two junior high school libraries and will serve a third library in a junior high school annex to be occupied in September 1966. The book will include a classified arrangement of titles with bibliographic information and title-a-line entries arranged by author, title, and subject. It will be coded to show the building in which each is housed. From the cards which are punched for purchase orders, the data processing equipment will write the order and store the information about each item for retrieval in book catalog form. Subcatalogs and bibliographies for specific subject areas will be rapidly available. Students and teachers will have access to the catalog in classrooms, the public library, and the school library. Number of persons to be served: 3,000 secondary school students and 180 faculty members and public library staff.

Further information: Dr. Hamilton S. Blum Assistant Superintendent -- Instruction, Howitt Junior High School, Grant and Van Cott Avenues, Farmingdale, New York 11735. (516) 249-7600 Ext. 23

PLANNING A PILOT PROGRAM K-12.
Timberlane Regional School District, Plaistow
OE No. 66-505 Planning Project Terminated
Amount sought - $31,400

A model school district, grades K-12, will be planned to include the following programs: Elementary level--library resources to encourage individual study skills and independent research; an organizational pattern of nongraded instruction for developing individualized study; coordination of subject-matter areas with the high school curriculum; guidance teams of counselors and social workers; expanded services in art, music, foreign languages, and physical education; and improved programs for the atypical child. Secondary level--cooperative team teaching and variable group instruction; flexible scheduling; maximum utilization of new technology, including data processing, educational television, and learning resource centers; and a regional teacher-educational program. The exemplary system is to demonstrate to schools throughout the State how existing facilities may be adapted to new ideas and how innovations may be incorporated into curriculum development and construction. The population of the District is 6,500 persons of whom 1,568 are students.

Further information: David L. Morris, Timberlane Regional School District, P. O. Box 248, Plaistow, New Hampshire 03865. (603) 382-8344 Ext. 6

PLANNING GRANT APPLICATION FOR SUPPLEMENTARY EDUCATIONAL CENTER.
Department of Education, San Diego County, San Diego
OE No. 66-507 Planning Project
Amount sought - $109,000

A center is to be planned by a five-member task group taking into account the educational needs of the community and available educational and cultural resources. Survey questionnaires, interviews, and other data collection techniques are to be used for determining needs. Social science and management specialists are to be consulted. District computer facilities will be used to process data. An analysis of needs and resources by the task group will result in recommendations for specific center projects. To be considered are: English as a second language for the Spanish-speaking community; programs for the educationally and economically disadvantaged and for science-oriented students; water safety; and increased learning opportunities for children in rural areas. Number of persons to be served: 280,000 students.

Further information: Dr. Cecil D. Hardesty, Superintendent of Schools, 6401 Linda Vista Road, San Diego, California 92111. (714) 278-6400 Ext. 211

SURVEY AND EVALUATION OF EDUCATIONAL NEEDS AND RESOURCES OF THE REGION COMPRISED OF ADAMS, CUMBERLAND, PERRY, MIFFLIN, JUNIATA, HUNTINGDON, FULTON, AND FRANKLIN COUNTIES OF PENNSYLVANIA.
Joint Board of the Shippensburg Regional Audio-Visual Library and Instructional Materials Center, Shippensburg
OE No. 66-533 Planning Project Terminated
Amount sought - $46,822

A study for total regional planning and utilization of resources will include experimental learning and demonstration; instructional materials such as library and audiovisual media, psychological and guidance services, curriculum development, inservice education, research and development, electronic data processing, publication and communication facilities, and continuing education. Planning will involve an extensive survey of available human and material resources in an 8-county area, selection of innovative ideas and exemplary programs to be developed, and development of plans for implementing selected ideas. Representatives of educational and cultural institutions will consider cooperative arrangements which may be developed to provide regional services to the schools. An estimated 107,188 persons will be served by the project.

Further information: Frank L. Hair, Area Curriculum Coordinator, Shippensburg State College, Shippensburg, Pennsylvania. (717) 532-2184

IMPROVEMENT OF EDUCATIONAL EXPERIENCES FOR ALL STUDENTS THROUGH THE DEVELOPMENT OF A MODULAR CURRICULUM.

Independent School District No. 274, Hopkins
OE No. 66-546 Planning Project Terminated
Amount sought - $42,763

A modular secondary school curriculum is to be planned to offer students opportunities for continuous progress. Data processing will be used for assigning students according to ability to flexibly scheduled small groups or "modules." A study of how innovative methods of instruction and more efficient organization may be incorporated into an educational system will take into consideration programs such as independent study, open laboratories, resource centers, student grouping, guidance and counseling, allocation of class time in subject-matter areas, student and teacher schedules, class size and loading, and teaching aids. Planning steps are to include forming an advisory committee to guide the planning staff; reviewing research results; analyzing pilot programs; developing inservice training for teachers and administrators; designing an application of technical and operational requirements for the proposed curriculum; translating input data requirements into machine processible form; simulating a modular system; preparing the final system curricular design; and establishing a master plan for implementing a modular curriculum. Number of persons to be served: 350,000 pupils and 18,000 staff members.

Further information: M. H. Ojala, Assistant Principal, 1001 Highway #7, Hopkins, Minnesota 55343. (612) 935-5571 Ext. 30

COMPUTER-BASED TEST DEVELOPMENT CENTER.

Multnomah County Intermediate Education District, Portland
OE No. 66-601 Planning Project Terminated
Amount sought - $13,168

This project results from dissatisfaction with nationally standardized tests and a desire to develop tests locally. These planners declare that national tests are concerned with the performance of students relative to each other but not with attainment of specific objectives of a training program; that is, they serve a normative but not a criterion function. They want to design specific tests for a given set of curricular offerings with a given type of student. The Metropolitan Area Testing Program Board and other participants will plan a computer-based test-development center that can retrieve test items rapidly from a stored pool of items coded by content area and student characteristics. The projects will serve an estimated 170,000 elementary and secondary school students.

Further information: James H. Beaird, Associate Research Professor, Teaching Research Division, Oregon State System of Higher Education, Monmouth, Oregon 97361. (503) 757-1421

CALIFORNIA REGIONAL EDUCATIONAL INFORMATION CENTERS.

Kern County Superintendent of Schools, Fresno County Schools Office, Los Angeles Unified School District of Los Angeles County, Contra Costa County Superintendent of Schools Office, Sacramento County Superintendent of Schools, San Francisco Unified School District, County of Orange Superintendent of Schools, Santa Clara County Superintendentof Schools, Sonoma County Superintendent of Schools, Office of the Ventura County Superintendent of Schools; Bakersfield, Fresno, Los Angeles, Pleasant Hill, Sacramento, San Francisco, Santa Ana, San Jose, Santa Rosa, Ventura.

OE No. 66-711 Operational Project Terminated

Amount sought - Kern County, $29,592; Fresno County, $27,672; Los Angeles County, $115,000; Contra Costa County, $42,758; Sacramento County, $53,443; San Francisco Unified School District, $43,323; Orange County, $51,391; Santa Clara County, $14,000; Sonoma County, $34,100; Ventura County, $47,194. Total: $458,473

This project is the result of 7 years of research and developmental work sponsored by the Cooperative Research Branch of the U. S. Office of Education and the California State Department of Education. Its purpose is to establish regional supplemental centers to process raw educational data. Two centers are now in operation in the State as prototypes. They offer preservice and inservice training to teachers, counselors, and school administrators in the use of computers. More demonstration and training centers are needed. This project is designed primarily to train center directors and their staffs and to demonstrate the new system of educational intelligence. The additional centers will be established in the 10 counties and will serve an estimated 300,000 students.

Further information: Theodore R. Smedberg, Sacramento County Superintendent of Schools, 6011 Folsom Blvd., Sacramento, California 95819. (916) 454-2821

EDUCATIONAL DATA PROCESSING.

Concordia Parish School Board, Vidalia

OE No. 66-852 Planning Project Terminated

Amount sought - $24,390

Investigation will be undertaken of the need for a data processing system, including a small computer, to be used in modernizing the curriculums on science, mathematics, and business courses in area school districts.

Further information: J. O. Lancaster, Superintendent, P. O. Box 548, Vidalia, Louisiana 71373. (318) 336-4226

EDUCATIONAL REORGANIZATION AND REORIENTATION THROUGH THE PERSONALIZATION OF INSTRUCTION.
Anniston City Schools, Anniston
OE No. 66-858 Planning Project Terminated
Amount sought - $54,485

A new approach to public education will be planned that will require designing new and unique physical facilities, reorganizing faculty, and creating a new relationship among the students, community, home, and school. The lessons for all students will be so designed that each may progress at his own rate of learning. A close surveillance on each child's progress will be maintained by the academic counselor and guidance counselor with the aid of a computer.

Further information: Floyd McLeod, Administrative Assistant, Anniston Public Schools, Anniston, Alabama 36201. (205) 237-5508

RESOURCE, PRODUCTION AND SERVICE CENTER.
Board of Education of the City of Orange, Orange
OE No. 66-924 Planning Project Terminated
Amount sought - $50,535

A demonstration resource center, a materials production area, a computer center, and a closed circuit television system will be planned.

Further information: Leonard Cronk, Superintendent of Schools, 369 Main Street, Colgate Building, Orange, New Jersey 07050. (201) 675-8282

SURVEY AND EVALUATION OF EDUCATIONAL NEEDS AND RESOURCES OF THE REGION COMPRISED OF CENTRE, CLEARFIELD, CLINTON, AND LYCOMING COUNTIES OF PENNSYLVANIA.
Centre County Board of Education, Bellefonte
OE No. 66-950 Planning Project Terminated
Amount sought - $132,600

A regional study of needs and resources will emphasize experimental learning, instructional materials, guidance services, curriculum development, inservice education, data processing, continuing education, and cultural enrichment.

Further information: C. Herbert Larson, Jr., Area Curriculum Coordinator, Lock Haven State College, Lock Haven, Pennsylvania 17745. (717) 748-3465

CENTRAL MINNESOTA EDUCATIONAL RESEARCH AND DEVELOPMENT COUNCIL.
Independent School District #47, Sauk Rapids
OE No. 66-1129 Planning Project Terminated
Amount sought - $53,000

Planning will be done to coordinate activities of all schools in seventeen counties; a research program, in-service training, data processing, and instructional television may be provided.

Further information: K. L. Halvorson, Superintendent, Sauk Rapids Public Schools, 901 - 1st Street South, Sauk Rapids, Minnesota 56379. (612) 251-7373

CURRICULUM ENRICHMENT CENTER.

Board of Cooperative Educational Services of Chenango County, Norwich
OE No. 66-1146 Operational Project
Amount sought - $165,257

The center will include facilities for cataloging library and audiovisual materials by data processing, equipment and supplies for the production of teaching materials, and a professional curriculum library.

Further information: Ernest Youmans, District Superintendent, Chenango County, Norwich, New York 13815. (607) 334-2281

A PLAN TO IDENTIFY THE USE AND FEASIBILITY OF AN INFORMATION, STORAGE AND RETRIEVAL SYSTEM TO SELECTED SCHOOLS IN THREE COUNTIES.

Westmoreland County Board of School Directors, Greensburg
OE No. 66-1148 Planning Project
Amount sought - $38,500

Various systems of storing and retrieving instructional materials and information will be investigated; a pilot program will develop instructional materials and evaluate the systems.

Further information: Arthur W. Reardon, Assistant County Superintendent and Director, Westmoreland County Regional Instructional Materials Center, 140 East Otterman Street, Greensburg, Pennsylvania. (412) 837-2815

EDUCATIONAL DEVELOPMENT THROUGH TECHNOLOGY.

Dover Special School District, Dover
OE No. 66-1253 Planning Project Terminated
Amount sought - $19,200

The project will be the nucleus of a State educational information technology system to provide educational research and development services and will involve staff members, teachers, students, and State Department of Education and University of Delaware personnel.

Further information: Justin W. Wilson, Jr., Superintendent of Schools, Dover Special School District, 945 Forrest Street, Dover, Delaware 19901. (302) 734-4104

INFORMATION DISSEMINATION CONCERNING EXEMPLARY PROGRAMS.

Claremont Unified School District, Claremont
OE No. 66-1479 Operational Project
Amount sought - $18,399

An information service will be established to disseminate information regarding three exemplary programs under way in the district. These programs involve a team teaching project, an ungraded primary education program, and a computer based flexible scheduling program at the secondary level.

Further information: Dr. John B. Brinegar, Superintendent, Claremont Unified School District, 2080 North Mountain Avenue, Claremont, California 91711. (714) 624-9041

AREA IX TOTAL INFORMATION SYSTEM.
Scott County Board of Education, Davenport
OE No. 66-1557 Operational Project
Amount sought - $307,000

A pilot project utilizing data processing for information retrieval will be operated for a 3-county, 5-district area.

Further information: Louis L. Pickett, Superintendent, Scott County Public Schools, Court House, Davenport, Iowa 52801. (319) 322-3511

OREGON TOTAL INFORMATION SYSTEM (OTIS).
Board of Education for the Intermediate Education District, Lane County
OE No. 66-1579 Planning Project Terminated
Amount sought - $20,700

A study will be made of existing data processing and computer-oriented systems to improve administrative management in Oregon schools.

Further information: Dr. William C. Jones, Superintendent, Lane County Intermediate Education District, 748 Pearl Street, Eugene, Oregon. (503) 342-5576

AN EDUCATIONAL RESOURCES CENTER.
Vicksburg Municipal Separate School District, Vicksburg
OE No. 66-1653 Planning Project Terminated
Amount sought - $39,970

Plans will be made to establish a resources center using automatic data processing and television to improve teacher education and extend the services of specialized teachers.

Further information: E. B. Martin, Office of the Superintendent, Vicksburg Public Schools, Vicksburg, Mississippi 39180. (601) 636-0160

REGIONAL EDUCATIONAL DEVELOPMENT ORGANIZATION (REDO).
Consolidated High School District No. 230, Palos Hills
OE No. 66-1665 Planning Project Terminated
Amount sought - $122,186

Planning will be undertaken to study needs for and develop additional educational programs; to centralize film and record library and computer science resources; and to create a planning center for 63 public school districts in South Cook County.

Further information: Roy Erdman, Director, Business Services, 111th and Roberts Road, Palos Hills, Illinois 60464. (312) 448-8000

A COMPACT TO PROMOTE AND IMPLEMENT CURRICULAR AND SCHEDULING INNOVATIONS IN SECONDARY SCHOOLS.
Woodburn Public Schools, Woodburn
OE No. 66-1700 Planning Project Terminated
Amount sought - $37,200

A computerized modular scheduling system will be developed to serve schools throughout the State.

Further information: Ray L. Talbert, Bend Senior High School, 230 East Sixth Street, Bend, Oregon. (503) 382-2131

PALO ALTO UNIFIED SCHOOL DISTRICT COMPUTER-BASED STUDENT COURSE SELECTION PROGRAM.

Superintendent of Palo Alto Unified School District, Palo Alto

OE No. 66-1701 Planning Project Terminated

Amount sought - $49,500

Planning and a pilot project will be undertaken to develop a guidance program that uses a computer to aid students in selecting courses.

Further information: Murray Tondow, 25 Churchill Avenue, Palo Alto, California. (415) 327-7100

REGIONAL RESEARCH AND DEVELOPMENT CENTER-REPORTING STUDENT PROGRESS IN TERMS OF MODULAR PROGRESS.

Masconomet Regional District School Committee, Boxford

OE No. 66-1819 Planning Project Terminated

Amount sought - $9,850

Research studies will evaluate the possibilities of establishing a regional computer center; a new concept of reporting to parents in terms of completion of objectives, rather than in terms of grade comparison, will be developed.

Further information: Julius H. Mueller, Superintendent of Schools, Endicott Road, Boxford, Massachusetts, Mail address: R.F.D., Topsfield, Massachusetts 01983. (617) 887-2323

COMPUTER-CONTROLLED MEDIA RESOURCE AND DATA CENTER FOR AREA XV, IOWA.

Wapello County Board of Education, Ottumwa

OE No. 66-1880 Operational Project

Amount sought - $199,914

A combined Computer-Controlled Media Resource Center and Regional Data Center will be established to provide easy access to a comprehensive inventory of instructional materials and equipment for the teachers in 10 counties, maintain a library of media resources, store computer information about the media, provide for teacher requests for media by teletransmission, ship such materials, and conduct training programs in media usage and preparation for inservice teachers. The Data Center will store and retrieve data about pupils, schools, expenditures, etc., useful in school administration, fiscal accounting, and instruction.

Further information: Melvin A. Evringham, Superintendent, Area XV, Iowa Technical Education Center, Ottumwa, Iowa 52501. (515) 684-6597

COMPUTER CONTROL SYSTEM AND SERVICE FACILITY TO ENHANCE QUALITY EDUCATION AND TO EVOLVE OPTIMAL DISTRIBUTION PATTERNS FOR LARGE URBAN CENTERS.

Board of Education, City of Chicago, Chicago

OE No. 66-2072 Operational Project

Amount sought - $259,220

A computerized control system will be established for effective distribution of educational films and audio-visual media throughout the Chicago public school system.

Further information: James F. Redmond, General Superintendent of Schools, 228 North LaSalle Street, Chicago, Illinois 60601. (312) 332-7800 Ext. 427

PERSONALIZATION OF LEARNING ACHIEVED THROUGH ORGANIC-EVALUATION.
Anniston City Board of Education, Anniston
OE No. 66-2337 Operational Project
Amount sought - $103,125

An evaluation system will be programed for computers to permit continuous diagnosis of pupil progress.

Further information: J. Revis Hall, Superintendent of Schools, Anniston City Board of Education, 1429 Woodstock Avenue, Anniston, Alabama 36201. (205) 237-2808

EDUCATIONAL INTELLECTUAL CENTER.
Yonkers City School District, Yonkers
OE No. 66-2475 Operational Project
Amount sought - $204,598

An educational intellectual center will provide computer based library services and educational materials to students and professional personnel in Yonkers and the surrounding area.

Further information: Stanley Wynstra, Superintendent, 138 South Broadway, Yonkers, New York 10701. (914) 936-4567

USE OF COMPUTERS FOR ADMINISTRATION AND GUIDANCE AND CONSELING
FISCAL YEAR 1967

AUTOMATION FOR ISOLATED SCHOOLS.

Fremont County Vocational High School, Lander
OE No. 67-2813 Planning Project Terminated
Amount sought - $10,585

A complete study of a plan that will reduce the administrative bottlenecks regarding student-scheduling and record-keeping will be made. The study phase of the project will be used to select a data processing firm that will work with the planning staff in developing a plan for automating scheduling and record-keeping. An in-service training program will be planned, and an operational budget will be drawn up.

Further information: Dr. John W. Reng, Superintendent, 1000 Main Street, Lander, Wyoming. (307) 332-4711

FLEXIBLE EDUCATIONAL PARK PLANNING FORMATS.

The District of Columbia Public Schools, Washington, D. C.
OE No. 67-2879 Operational Project
Amount sought - $49,235

A study will be made to determine the type of educational park best suited to the needs of the area. Educational-community service specifications will be established to guide architectural planning and a PERT computerized educational park planning program will be developed.

Further information: Joseph M. Carroll, Assistant Superintendent, Department of Research, Budget and Legislation, Franklin Administration Building, 13th and K Streets, N. W., Washington, D. C. 20005.

TOTAL APPLICATION OF DATA PROCESSING TECHNIQUES TO PUPIL TRANSPORTATION.

Hamilton County Board of Education, Cincinnati
OE No. 67-3210 Planning Project
Amount sought - $145,772

Plans will be made to develop a pupil transportation plan based on the application of data processing techniques to all areas of transportation management. The data processing system will serve 157 school districts with services designed to: avoid duplication of effort; provide for curriculum expansion; and efficiently utilize facilities.

Further information: John L. Wilson, Superintendent, 325 E. Central Parkway, Cincinnati, Ohio 45202. (513) 632-8441

A MULTI-DISCIPLINARY APPROACH TO IDENTIFICATION, DIAGNOSIS, AND REMEDIATION OF EDUCATIONAL DISABILITIES.
Cooperative Educational Service Agency No. 10, Plymouth
OE No. 67-3228 Operational Project
Amount sought - $99,975

A multi-disciplinary team, working with pediatricians, will be formed to identify and remedy educational disabilities in a tri-county area. Data processing techniques will be utilized to analyze the characteristics of the population to be served. Inservice teacher training and internship programs will also be provided. Counties served: Sheboygan, Manitowac, Calumet.

Further information: Ervin Stankevitz, Coordinator, Cooperative Educational Service Agency No. 10, 111 East Mill Street, Plymouth, Wisconsin 53073. (414) 892-4914

PROJECT SERVICE: A SOUTHEAST TEXAS EDUCATIONAL SERVICES CENTER.
Orange Independent School District, Orange
OE No. 67-3299 Operational Project
Amount sought - $217,768

A regional service center will be established to provide the following services: educational planning, curriculum development, inservice development, diagnostic aid, data processing, and instructional-materials assistance. Terminal students will be given extra attention. Curriculum specialists and data processing techniques will be employed to develop a comprehensive analysis and evaluation of each problem and expedite management functions. Forty-four school districts in eight counties will be served by the program. Counties served: Orange, Chambers, Hardin, Jasper, Jefferson, Liberty, Newton, Tyler.

Further information: M. L. Brockette, Superintendent, Orange Independent School District, 501 N. 15th Street, Orange, Texas 77630. (713) TH 3-8461

PROJECT SERVICE: A SOUTHEAST TEXAS EDUCATIONAL SERVICES CENTER.
Orange Independent School District, Orange
OE No. 67-3299 Operational Project
Amount sought - $440,246

A regional service center will be established to provide the following services: (1) educational planning, (2) curriculum development, (3) inservice development, (4) diagnostic aid, (5) data processing, and (6) instructional-materials assistance. Terminal students will be given extra attention. Curriculum specialists and data processing will be employed to develop a comprehensive analysis and evaluation of each problem and expedite management functions. Forty-four school districts in eight counties will be served by the program.

Further information: Mr. M. L. Brockette, Superintendent, 501 N. 15th Street, Orange, Texas 77630. (713) TU 3-8461

USING DATA PROCESSING TO EVALUATE AND IMPROVE CLASSROOM INSTRUCTION IN SELECTED MISSISSIPPI SCHOOL DISTRICT.
McComb Municipal Separate School District, McComb
OE No. 67-3527 Operational Project
Amount sought - $173,092

The Southwest Mississippi Data Processing Center will be expanded to serve all interested Mississippi school districts. Rapid evaluation will be obtained by data processing of test results, grades, pupil attendance, and pupil attitudes as recorded. Through evaluation, these data will be translated into student needs. Data print out will be quickly disseminated to teachers and administrators.

Further information: J. D. Prince, Superintendent, McComb Public Schools, 647 Louisiana Avenue, McComb, Mississippi 39648. (601) 684-4661, Ext. 4

SOUTH COOK COUNTY EDUCATIONAL DEVELOPMENT CENTER.
South Cook County Educational Development Cooperative, Palos Hills
OE No. 67-3530 Operational Project
Amount sought - $668,581

An instructional service center will serve students and teachers in 63 school districts by coordinating all programs in the area, and providing a centralized film center, diagnostic services, library resources unit, and television and radio recording facilities. Computerized instruction programs, information storage and retrieval systems, and curriculum development programs also will be provided. Inservice leadership and teacher training programs will be directed by specialists.

Further information: William O. Fisher, Superintendent of Administering District, 111th and Roberts Road, Palos Hills, Illinois 60464. (312) 448-8000 Ext. 021

EDUCATIONAL PLANNING, REGION I, TO ESTABLISH SERVICE AND REGIONAL MEDIA CENTER.
Edinburg Consolidated Independent School District, Edinburg
OE No. 67-3550 Planning Project
Amount sought - $67,524

An education and educational media service center will be planned. The center is to provide inservice education, pupil-diagnostic services, enrichment programs, administrative services such as data processing and cooperative purchasing, and audio-visual aids. Better and more coordinated educational planning and improved training are expected as a result of the center. The service will be provided for seven counties. Forty-eight school districts will participate in the planned program.

Further information: T. S. Pickens, Superintendent, 101 N. 8th Street, Edinburg, Texas 78539. (512) DU 3-4951

ASSISTANCE IN DECISION MAKING THROUGH RETRIEVAL IN EDUCATION.
School District of the City of Lincoln, Nebraska, Lincoln
OE No. 67-3593 Operational Project
Amount sought - $96,546

A computer and data processing center will be established for a five-county area to improve educational decision-making. The facilities will be used to collect, correlate, and analyze information from all schools in the area and make this information available to all teachers and administrators.

Further information: Mrs. Anne Campbell, Administrative Assistant to Government Services, P. O. Box 200, Lincoln, Nebraska 68501. (402) 475-1081

LORAIN COUNTY SUPPLEMENTARY EDUCATIONAL CENTER.
Lorain County Board of Education, Elyria
OE No. 67-3696 Planning Project Terminated
Amount sought - $53,664

A service center, staffed with personnel qualified to provide educational, resource and consultant services to 15 schools in one county, will be planned by a committee representing all the schools. A model program will be designed, using modern instructional materials and equipment in science, data processing, and communication, to provide improved services, including diagnostic and remedial, to all children and teachers in the area.

Further information: Wayne A. Whyte, Lorain County Superintendent, 420 West Third Street, Elyria, Ohio 44035. (216) 322-4924

EDUCATIONAL AUTOMATION.
Concordia Parish School Board
OE No. 67-3765 Operational Project
Amount sought - $98,530

A data-processing demonstration center will be established for the three-county area. The purposes of the center are to (1) record academic, vocational, and health records of the students; (2) score and record tests; and (3) conduct inservice training in the uses of data processing in guidance, counseling, and curriculum development. The information about each child will be put on tape. The tape will then be used for counseling, reporting to parents, registration, scheduling, etc. Three school districts will be served by the center.

Further information: J. O. Lancaster, Superintendent of Schools, 508 5th Street, Vidalia, Louisiana 71373. (318) 336-4226

OPERATIONAL LEARNING.

Desert Center Unified School District, Eagle Mountain
OE No. 67-4161 Operational Project
Amount sought - $80,670

Games and simulations will be incorporated into the central curriculum to teach humanities in one unified school district of a geographically isolated area. Multi-media presentations and computer-aided scheduling will be employed. The games will be designed so that the participants will be required to make decisions as a central part of the learning process. It is hoped that the method will motivate students to study such related subjects as mathematics.

Further information: Otis Mallory, District Superintendent, P. O. Box 475, Eagle Mountain, California 92241. (714) EX 2-4277

REGIONAL ENRICHMENT CENTER.

Kalamazoo Valley Intermediate School District, Kalamazoo
OE No. 67-4241 Operational Project
Amount sought - $300,000

A regional center will be established to supplement the existing educational programs of a five-county region by providing a catalog of area cultural and educational resources and demonstrating their use; continuing inservice training for teachers; an instructional materials service; and by establishing an automatic data processing center. Counties served: Kalamazoo, St. Joseph, Van Buren, Berrien, Cass.

Further information: Albert L. Bradfield, Superintendent of Schools, Kalamazoo Valley Intermediate School District, 508 East Dutton Street, Kalamazoo, Michigan 49001. (616) 342-0254

IMPROVED EDUCATIONAL SERVICES AND PRACTICES THROUGH UTILIZATION OF ELECTRONIC RECORDS.

Dade County Board of Public Instruction, Miami
OE No. 67-4355 Operational Project
Amount sought - $496,897

A multi-county attack is planned to remedy the lack of accurate, timely, and complete information on students and to make information available on educational advisement. These problems will be attacked by implementing improved educational services and practices, including the production of an electronic student information record with a uniform data coding system and effectively utilizing the student data by setting up an automatic referral system with analysis based on predetermined criteria. Four school districts will be served by the program.

Further information: Dr. Joe Hall, Superintendent of Schools, 1410 N. E. 2nd Avenue, Miami, Florida 33132. (305) 377-4311

PLANNING GRANT TO ESTABLISH AN EDUCATIONAL MEDIA CENTER.
Northeastern Instructional Materials Center, Scranton
OE No. 67-4386 Planning Project Terminated
Amount sought - $19,127

An educational media and communication center will be planned for a five-county area of 51 school districts. It will be a center for materials and resources, curriculum and educational technology development, teacher recruitment and placement, specialists as resource persons for classroom presentations, psychological services, and computer and research services.

Further information: John Arcangelo, Education Program Specialist, 506 Spruce Street, Scranton, Pennsylvania 18503. (717) 346-7071

COMPUTER-BASED COURSE SELECTION PROGRAM.
Palo Alto Unified School District, Palo Alto
OE No. 67-4391 Operational Project Terminated
Amount sought - $52,719

High school students numbering over 7,500 will select courses via an information system that will furnish requirements and specifications including college types, grades, vocational choices, and complete course descriptions. The information given to the students will allow them to make choices which can be electronically processed, permitting better and speedier scheduling.

Further information: Murray Tondow, Director, Educational Data Services, 25 Churchill Street, Palo Alto, California 94306. (415) 327-7100 Ext. 4261

INTEGRATED EDUCATIONAL INFORMATION SYSTEM.
Intermediate School District, County of Macomb, Mount Clemens
OE No. 67-4475 Operational Project
Amount sought - $299,237

A centralized computer installation will provide 93 school districts with services in curriculum enrichment, financial management, student records, personnel records, and facilities records. Staff training will insure proper and complete utilization of the system.

Further information: Harold E. LeFeure, Superintendent, Intermediate School District, Fourth Floor, County Building, Mount Clemens, Michigan 48043. (313) 468-0971

M. G. STUDENT COMPUTER ORIENTED PROGRAM - EDUCATION (SCOPE).
Board of Education of the Youngstown City School District,
Youngstown
OE No. 67-4512(7)   Mini-Grant Project
Amount sought - $25,000

Plans will be made for the operation of an educational data processing center. A total educational information system supporting the instructional and management functions of 16 public and nonpublic school systems in Mahoning County will be developed. Counties served: Mahoning.

Further information: J. H. Wanamaker, Superintendent of Schools, Board of Education of the Youngstown City School District, 20 West Wood Street, Youngstown, Ohio 44503. (216) 743-1151

MG-EDUCATIONAL INFORMATION SYSTEM PILOT PROJECT.
School District No. 422, Cascade
OE No. 67-4568-7   Mini-Grant Project   Terminated
Amount sought - $25,000

A program will be undertaken to demonstrate the feasibility of a Statewide educational information system, to acquaint State educators with the potentials of data processing, and to develop guidelines for the changeover to a computer-based information system. Counties served: Valley

Further information: Jerry L. Evans, Superintendent of Schools, Box 291, Cascade, Idaho 93611. (208) 382-3511

FEASIBILITY STUDY OF INFORMATION RETRIEVAL SYSTEMS.
Decatur, Alabama
OE No. 67-04703(7)
Amount sought - $25,000

Counties served: Morgan

Further information: H. R. Leeman, Superintendent, Decatur City Schools, 210 Wilson Street, N. E., Decatur, Alabama 35601. (205) 353-6731

USE OF COMPUTERS FOR ADMINISTRATION AND GUIDANCE AND COUNSELING
FISCAL YEAR 1968

INTEREST PROFILE ANALYSIS CURRICULUM.
Widefield - Security School District No. 3, Security
OE No. 68-5168 Planning Project
Amount sought - $97,740

An interest profile analysis curriculum, emphasizing the interest rather than the ability level of the student, will be designed to serve as the basis for an individualized instructional program for secondary schools. Teachers and department chairmen will attend institutes to study and validate proposed programs. Consideration will be given to the use of a computer in analyzing data related to student goals in each program area. Counties served: El Paso.

Further information: Donald Joiner, Administrative Assistant to the Superintendent, 701 Widefield Drive, Security, Colorado 80011. (303) 392-3481

PROJECT CONTEMPORARY COMPETITIVENESS.
Bridgewater Public School Department, Bridgewater
OE No. 68-5208 Operational Project
Amount sought - $183,641

A supplementary education center, located at a local college, will serve advanced and gifted public school students in a summer program, provide teacher workshops in team teaching, develop an adult education program for institutional inmates and retired persons, and offer data processing services for school systems. Teaching interns from the college will serve in the schools. Counties served: Bristol, Plymouth.

Further information: Albert F. Hunt, Jr., Superintendent of Schools, Central Square, Bridgewater, Massachusetts 02324. (617) 697-6914

OTIS (OREGON TOTAL INFORMATION SYSTEM).
Board of Education for the Intermediate Education District, Eugene
OE No. 68-5233 Operational Project
Amount sought - $250,000

A comprehensive computer system will be developed to create a data bank which will include all areas of student, staff, and administrative information. A single programed control system and telecommunications network will link participating schools in a large geographical area and make data readily available for research, review, and planning. Counties served: Coos, Deschutes, Lane, Multnomah, Umatilla.

Further information: Noble Wheeler, Chairman, Board of Education, 748 Pearl Street, Eugene, Oregon 97401. (503) 342-5576

GENERAL ADVANCEMENT PROGRAM (GAP).

New London Public Schools, New London
OE No. 68-5282 Planning Project
Amount sought - $37,400

Ten school districts will cooperate in developing a program to identify and study students who are poorly motivated, lacking in achievement, and who have no vocational goals. Testing and interviewing procedures and a computer facility will be used to gather information on the nature and educability of these students. Counties served: New London.

Further information: Joseph V. Medeiros, Superintendent of Schools, 134 Williams Street, New London, Connecticut 06320. (203) 443-5357

COMPREHENSIVE PROGRAM FOR INNOVATION - PART II.

School District of Philadelphia, Philadelphia
OE No. 68-5387 Operational Project
Amount sought - $1,056,404

An educational center will be established to provide educational consultation and research, instructional materials, and computer programing of educational data. Teachers, interns, and student teachers will be trained, and schools will be provided with findings and pertinent data. Students in all city schools and community members will be served. Counties served: Philadelphia.

Further information: Robert L. Poindexter, Acting Superintendent, Parkway at 21st Street, Philadelphia, Pennsylvania 19103. (215) 448-3671

COOPERATIVE COMMUNITY EDUCATIONAL RESOURCES CENTER.

Boulder Valley School District Region No. 2, Boulder
OE No. 68-5538 Operational Project
Amount sought - $50,797

A computerized storage and retrieval system will be designed to provide teachers and students with abstracts of information on educational literature, instructional materials, resource people and places. A dissemination center will be staffed with professionals who will design and implement a plan for disseminating material. Personal interest and need profiles will be prepared so that users will receive only preferred information. Counties served: Boulder.

Further information: Richard M. Fawley, Director of Curriculum, Research, and Statistical Analysis, P. O. Box 186, Boulder, Colorado 80302. (303) 442-6931

PROJECT INFORM: A DISSEMINATION CENTER.
Charleston Community Unit School District No. 1, Charleston
OE No. 68-5546 Operational Project
Amount sought - $195,493

An educational engineering center, serving the entire State, will provide the means for storage and dissemination of information related to educational planning and experiences, research and experimental projects, and field testing. This communications system will permit schools to receive up-to-date information for use in their curriculums and management and will serve as a prototype for other States planning information systems. Counties served: Statewide.

Further information: Paul Seitsinger, Superintendent of Schools, 1115 Monroe Street, Charleston, Illinois 61920. (217) 345-2106

QUICK-TIME EDUCATION INFORMATION RETRIEVAL IN WISCONSIN.
Joint School District No. 8, Madison
OE No. 68-5666 Operational Project
Amount sought - $46,664

A Statewide information retrieval system, utilizing the Permuted Indexing System developed by IBM, will be designed to provide school people with cross-referenced print-outs of research and ESEA Title I and Title III project activities within the State. The indexing system, called KWIC (Key Work In Context), will produce information at three levels: title, subject, and author; one hundred work abstracts of selected articles; and guided indexing to article. Counties served: Statewide.

Further information: Robert D. Gilberts, Superintendent, Madison Public Schools, 545 West Dayton Street, Madison, Wisconsin 53703. (608) 256-1911

PLANNING A COMPUTER-ASSISTED COUNSELING CENTER.
Independent School District No. 30, Bartlesville
OE No. 68-5685 Planning Project
Amount sought - $50,000

A center will be established to develop a comprehensive computer-assisted guidance and counseling program to serve students in grades 6-12 in a three-county area. A committee composed of representatives from State and local educational agencies will identify the variables common to decision-making processes and develop computer programs to aid the counselor in analyzing, retrieving, and summarizing the data. Counties served: Oklahoma, Tulsa, Washington.

Further information: Bill Crutcher, Business Manager, Administration Building, Seventh and Orage, Bartlesville, Oklahoma 74003. (918) 336-8211

INNOVATIVE IMPLEMENTATION OF GENERALIZED ACADEMIC SIMULATION PROGRAM (GASP).

School Committee, City of Boston, Boston
OE No. 68-5760 Planning Project
Amount sought - $35,400

A new concept in computer programing will be introduced to plan the effective utilization of faculty and facilities in a proposed central high school. A research analyst and consultants will use educational data input to develop a strong education program. Computer techniques will be used for developing programed instructional material for use in the curriculum of the new high school. Counties served: Suffolk.

Further information: William H. Ohrenberger, Superintendent of Boston Public Schools, 15 Beacon Street, Boston, Massachusetts 02108. (617) 227-5500

AUTOMATED EDUCATIONAL DATA SYSTEM.

Dougherty County Board of Education, Albany
OE No. 68-5795 Planning Project
Amount sought - $59,647

Specialists and consultants will study methods for implementing an educational data processing center to gather, store, retrieve, analyze, and disseminate educational material as a means of improving the educational processes. Data processing systems in use at colleges and other educational agencies will be examined as a part of the study. Counties served: Dougherty.

Further information: J. J. Cordell, Superintendent of Education, 601 Flint Avenue, Albany, Georgia 31702. (912) 436-4843

CHILD DEVELOPMENT CENTER.

Reorganized District No. R-XI, Dexter
OE No. 68-5810 Operational Project
Amount sought - $200,000

A center will be established to provide professional services for 58 school districts and to determine priorities for educational needs. A pilot program will acquaint the staff with local needs. Consultants, supervised teacher training, clinical facilities, and comprehensive computer services will be supplied. Reading specialists, social workers, school psychologists, speech therapists, and psychometrists will concern themselves with virtually all aspects of the growth and development of the individual child. The center will operate in a predominantly rural area and serve as a model for similar areas. Counties served: Bollinger, Butler, Cape Girardeau, Carter, Dunklin, Mississippi, New Madrid, Pemiscot, Ripley, Scott, Stoddard, Wayne.

Further information: Thurston Hill, Superintendent of Schools, P. O. Box 289, Dexter, Missouri 63841. (314) 624-2622, Ext. 2

EDUCATIONAL CIRCUMFERENTIAL INFORMATION SYSTEM (E. C. I. S.).
School District No. 422, Cascade
OE No. 68-6040 Operational Project
Amount sought - $120,000

A statewide program will implement and utilize previously designed information systems to benefit all educational levels. Educational criteria in the areas of school finance, facilities, student accounting, staff accounting, and curriculums will be disseminated. Workshops will acquaint teachers with the capabilities of the computerized information system, and accumulated data in the memory bank will serve as a basis for projecting the future needs and plans of participating schools. On-the-job training in the computer field will be available to students, and a system of computer instruction by mail will be devised for secondary students in remote localities. Counties served: Statewide.

Further information: Jerry L. Evans, Superintendent of Schools, Cascade High School, Cascade, Idaho 83611. (208) 382-3511

PLANNING FOR CHILDREN WITH LEARNING DISABILITIES.
Calcasieu Parish School System, Lake Charles
OE No. 68-6042 Planning Project
Amount sought - $44,638

A preliminary study will identify those children presently enrolled in local elementary and high schools who need special training because of learning disabilities. An advisory committee, composed of representatives from public and nonpublic schools and other agencies with a particular interest in the field of learning difficulties, will conduct a survey of literature concerned with the diagnosis and remediation of learning difficulties; will compile lists of operating programs for students with learning difficulties; and will visit model programs and report findings. Students requiring special training will be identified through school records, I.Q. scores, achievement tests, and teacher recommendations. Information will be analyzed through computerized data processing. Tentative categorization of major types of learning difficulties found in the local schools will be made. Consultant services will be secured for physical therapy, social work, psychiatry, neurology, ophthalmology, and pediatrics conferences and screening. This preliminary study should produce a workable plan to provide better educational services for these children. Counties served: Calcasieu.

Further information: C. W. Hanchey, Superintendent of Schools, 1724 Kirkman Street, Lake Charles, Louisiana 70601. (318) 433-6321

GREATER REGIONAL OPPORTUNITIES FOR WATERBURY.
Board of Education, Woodbury
OE No. 68-6107 Planning Project
Amount sought - $50,000

Local business and industry will be encouraged to participate in solving a variety of educational problems through the establishment of a regional opportunities center. Analysis of information for more effective communication between educators, researchers, and computer personnel in charge of hardware and software programs is planned; and opportunities for employment in the area will be investigated. Attention will be given to curriculum development, use of technology and media, and possible use of television. Programs for students who are academically gifted will be studied, and the interdependence of schools of higher learning and industry will be considered. Counties served: Litchfield, New Haven.

Further information: Theodore H. Martland, Superintendent of Schools, School Street, Woodbury, Connecticut 06798. (203) 263-2819

SARASOTA'S EDUCATIONAL EXPLORATION DEVELOPMENT SCHOOL.
Sarasota County Board of Public Instruction, Sarasota
OE No. 68-6139 Operational Project
Amount sought - $249,594

A centralized school will offer individualized, in-depth instruction to enable gifted children in grades 3-12 to advance at their own rates. Students will be selected and advanced to higher levels of learning exploration through interviews and psychological and academic tests. Inservice training will be provided for the teaching staff; and data processing, programed learning equipment, and library materials will aid in each student's intellectual exploration. Counties served: Sarasota.

Further information: Herbert P. Field, Chairman, 2418 Hatton Street, Sarasota, Florida 33577. (813) 958-8831

DESIGNING LEARNER-CENTERED INSTRUCTIONAL SYSTEM.
Union Free School District No. 10, Mineola
OE No. 68-6141 Operational Project
Amount sought - $60,000

Using the systems approach, this project will design, develop and implement a learner-centered instructional program in vocationally related mathematics. The system will require the specification of performance objectives, coupled with statements of minimum performance criteria, and the development of instructional strategies to achieve a program of individualized instruction for noncollege-bound students. Available teaching materials and resources will be analyzed to determine their appropriateness in relation to specific performance objectives. Participating students' test scores, record cards, and conference results will be coded for computer storage and retrieval. Counties served: Nassau.

Further information: Ben Wallace, Superintendent of Schools, Mineola Public Schools, 200 Emory Road, Mineola, New York 11501. (516) 747-6700

EDUCATIONAL AND CULTURAL RESOURCES PROGRAM.

Washington County Board of Education, Hagerstown
OE No. 68-6257 Operational Project
Amount sought - $37,576

All existing county resource media will be cataloged, stored, and automatically retrieved upon request from cooperating public, nonpublic, and independent county schools with the implementation of an educational resources program. An investigation will be made of existing retrieval systems, and a plan will be devised for local use based on the investigative findings. Workshops, checklists, and meetings of school officials will furnish an inventory of existing educational materials that are on hand. A plan for the sequential development of an automated retrieval system will be devised after materials have been identified, catalogued, and cross-indexed. Modular development is planned to permit phased implementation. Counties served: Washington.

Further information: William M. Brish, Superintendent of Schools, Box 730, Commonwealth Avenue, Hagerstown, Maryland 21740. (301) 731-2700

STATEWIDE REGIONAL DATA PROCESSING PLANNING.

Albany-Schoharie-Schenectady, Albany
OE No. 68-6306 Planning Project
Amount sought - $150,000

Systems analysis and design will be undertaken to develop a statewide educational data processing system, utilizing as fully as possible the capabilities of the electronic computer, to supply information to the State Education Agency, teachers, guidance personnel, school administrators, Board of Education members, business officials, and the general public. One or more consulting firms will perform parts of the three-phase program, consisting of analysis and design, subsystem programming, and refining and final checkouts. An evaluation and training center will be established in the school district of the State capital, with the expectation that this pilot program will then be expanded to the rest of the State. Both equipment and procedures will be evaluated at the center. The total system, consisting ultimately of nine regional centers and three larger evaluation and training centers, will seek to avoid costly duplication of data-processing efforts throughout the State. Counties served: Albany, Columbia, Greene, Rensselaer, Saratoga, Schenectady, Schoharie, Washington.

Further information: John H. Fink, District Superintendent of Schools, 381 Sandcreek Road, Albany, New York 12205. (518) 459-1414

INFORMATION RETRIEVAL AND DISSEMINATION CENTER.
Union Free School District No. 5 and Levittown Public Library, Levittown
OE No. 68-6326 Operational Project
Amount sought - $45,843

Rapid and efficient information retrieval and dissemination will be accomplished through cooperative efforts between the public library and the public and nonpublic schools serving 20,000 students in a suburban school district. A center will be established in a centrally located library that has a good basic collection of books and periodicals, as well as the capability of locating and reporducing multiple copies from the variety of available resource materials. Teacher and student requests will be processed, and daily deliveries will be made to schools. The center, which has space available for easy conversion to storage, will be staffed by library personnel and will be operational for many hours each day. School and library personnel will be instructed in procedures to make maximum use of facilities and materials. Counties served: Nassau.

Further information: Louis Blumberg, Superintendent, Union Free School District No. 5, North Village Green, Levittown, New York 11756. (516) 796-6800

CURRICULUM IMPROVEMENT THROUGH MODULAR SCHEDULING.
Roanoke County School Board, Salem
OE No. 68-6435 Operational Project
Amount sought - $112,176

A flexible, modular curriculum will be established in a model school enrolling 1,350 students, grades 7-12. Curriculum improvement will be achieved through the addition of new courses and instructional innovations; instructional techniques such as team teaching, teacher aides, individualized instruction, and inservice teacher training; and better service to individual students to foster their self-reliance and meet their individual needs. An instructional materials center will be established to house library materials, multimedia aids, study carrels, learning laboratories, and areas for independent study and research. A central computer control will also be established to provide efficient administration of school resources. Counties served: Roanoke.

Further information: Arnold R. Burton, Superintendent of Schools, 526 College Avenue, Salem, Virginia 24153. (703) 389-7244

REGION IV EDUCATION SERVICE CENTER.
Educational Service Center, Region IV, Houston
OE No. 68-6643 Operational Project
Amount sought - $85,000

A regional center will utilize cooperative planning to provide programs, activities, and services in instructional improvement, evaluation, and development of procedures and techniques for 56 school districts in seven counties. The center will also contribute to Statewide educational planning and will coordinate various locally supported components of its program, including media and computer services. Counties served: Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Waller.

Further information: T. S. Hancock, Executive Director, 202 North Loop West, Houston, Texas 77018. (713) 869-7146

AUTOMATION FOR ISOLATED SCHOOLS.
Freemont County Vocational High School, Lander
OE No. 68-6687 Operational Project
Amount sought - $7,743

A computer will be used to increase the efficiency of high school class scheduling and personnel services for 973 students. Teachers will be asked to develop time/class-size patterns for each of their subjects for processing into a master schedule, using as a basis the theory that different academic subjects require different degrees of attention. Thereafter, the computer will be used to generate a class schedule for each student, taking into account the amount of energy required by teacher and pupil to make a course successful. In addition, the computer will be used for student record and information storing and processing to permit rapid identification of problem areas to be dealt with in individual guidance consultation. Counties served: Fremont.

Further information: John W. Reng, Superintendent, Fremont County Vocational High School, 1000 Main Street, Lander, Wyoming 82520. (307) 332-4711

CENTRAL CITIES PROGRAM.
Houston Independent School District, Houston
OE No. 68-6707 Operational Project
Amount sought - $500,000

A program will be designed to help establish a positive self-image in each of the 5990 participants as a member of his own culture and community and in harmony with his heritage so that this self-image will be conducive to continued growth and fuller realization as an individual. There will be a community-based program including preschool as well as adult education in each of five elementary school centers. A cooperative occupational counseling and vocational program will be offered in both elementary and secondary schools of the subsystem. This program will include on-the-job training and part-time employment of secondary school students in a full 12-month school program. An extensive health, physical fitness, and recreational program will be developed for grades K through 12. Existing educational television and computer facilities will be made available as needed. Counties served: Harris.

Further information: H. W. Elrod, Superintendent for Instruction and Administration, 1300 Capitol Avenue, Houston, Texas 77002. (713) 234-9871

☆ U.S. GOVERNMENT PRINTING OFFICE : 1969 O—354-979